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ECONOMIC BULLETIN FOR EUROPE

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SYMBOLS EMPLOYED

The following symbols have been used throughout this *Bulletin*:

.. = not available or not pertinent.
— = nil or negligible.
* = estimate by the secretariat of the Economic Commission for Europe.
▪ = revised figure.

In referring to combinations of years, the use of an oblique stroke—*e.g.*, 1954/55—signifies a 12-month period (say from 1 July 1954 to 30 June 1955). The use of a hyphen—*e.g.*, 1953-1955—signifies an average of the full period of calendar years covered (including the end years indicated).

Unless otherwise indicated, the standard unit of weight used throughout is the metric ton. The definition of "billion" used throughout is one thousand millions. Minor discrepancies in totals and percentages are due to rounding.

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ECONOMIC BULLETIN FOR EUROPE

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UNITED NATIONS

CURRENT ECONOMIC DEVELOPMENTS IN EUROPE

1. The Impact of Recent Events in Eastern Europe and the Middle East

Even if more or less normal economic activity is resumed without much further delay, recent events in eastern Europe and the Middle East are bound to have important effects on the economies of European countries. The economic repercussions from developments in eastern Europe are twofold: first, there are the direct losses arising from the insurrection and the subsequent heavy fighting in Hungary, and secondly, far-reaching changes in economic policies are under way both in Poland and in Hungary, especially with regard to agriculture.

The Hungarian uprising came at a time when the country was in any case faced with considerable economic difficulties in the form of an acute fuel shortage and an unsatisfactory harvest. Destruction of buildings and transport installations has now added to these difficulties and, in addition, there are losses due to the interruption of normal economic activity through disorganization and strikes, and through failure to do the complete autumn sowing. It is not yet possible to estimate the size of these losses. It is clear, though, that in addition to the losses in human lives, a most severe and dangerous drop in standards of living, with serious consequences for health, is the immediate result and seems bound to persist unless adequate relief measures are taken.

Nor is it possible as yet to gauge the full implications of the changes in economic policies which have been announced in Poland and in Hungary. Though these new policies have not yet taken final shape, and will doubtless differ between the two countries, three main lines of action can already be discerned. First, investment policies are likely to be modified in such a way as to devote relatively more resources to consumption; secondly, policies with regard to agricultural collectivization and the treatment of independent peasants are being re-shaped; and thirdly, the tendency towards decentralization in methods of planning and of economic administration in general is likely to be strengthened by the introduction of workers' councils.

The analysis of economic developments in eastern Europe given in the present article follows events up to the middle of October, and it is impossible at this stage to give a full description and appraisal of the economic implications of the changes which intervened in the second half of October.

It is no easier to assess the full effects on the economies of the western European countries of the blocking of the Suez Canal and the damage to oil pipelines, or of the general heightening of political tension as a result of the recent disturbances to peace in the Middle East. At the time of writing it is still uncertain how long the Canal will remain blocked, and estimates of the time needed to clear it range from about three to nine months.

Western Europe has in the recent past drawn all but about 5 per cent of its oil supplies from the Middle East, and about two-thirds of the total supplies have been shipped through the Suez Canal. Of the remainder, an amount equal to nearly a quarter of total supplies has come through the Iraq Petroleum Company's pipelines. The extent of the damage done to the pipelines and pumping stations is still uncertain; but it is

possible that at least a reduced flow of oil could be restored fairly quickly.

Most western European countries appear to hold stocks of oil equivalent to between one and two months' normal consumption, and many of them have already taken steps to reduce consumption below normal levels. But if the Canal and the pipelines remain out of action for more than the minimum period at present considered likely, the problem of adapting the west European economy to a reduced flow of oil supplies may become serious.

The main factor forcing a reduction of west European consumption in these circumstances would be not a physical shortage of oil in the world as a whole (production can probably be fairly rapidly stepped up in the United States and Venezuela to make up for any loss of Middle Eastern supplies), but a shortage of tanker capacity. The world tanker fleet is already fully employed, and only a very few ships can readily be added to it from the United States reserve fleet. If the Canal remains blocked for long, the longer hauls from the Persian Gulf round the Cape or across the Atlantic seem certain to reduce western Europe's total oil supplies as well as to raise their delivered cost.

The countries most dependent on oil for their fuel requirements are Sweden and Denmark, which import most of their supplies from refineries in other western European countries. The countries which normally have a considerable export trade in petroleum products with the rest of western Europe (the United Kingdom, France, Netherlands and Italy) could doubtless minimize the adverse effects on their own industries of a reduction in total supplies to the area by reducing or eliminating exports; but this could be disastrous for the importing countries and, if an overall shortage should persist for any considerable length of time, co-operation in ensuring an equitable distribution of supplies between countries will doubtless be required.

While the necessary reduction of consumption of motor spirit can probably be made to fall on private motoring, without any serious effects on consumption by industry, the shortage of fuel oil is likely to present more serious problems. Unless the Canal can be cleared earlier than seems likely at the time of writing, measures to allocate supplies as between countries, and within countries as between industries, will become necessary. There is certainly scope—though varying as between industries and enterprises—for switching to the use of other fuels, but this is made difficult by the already strained supply situation for coal.

The most effective relief would doubtless be through greatly stepped-up imports of coal from the United States. These are now running at a rate of about 50 million tons a year, and would probably rise next year—assuming a continuing industrial expansion in western Europe—even if normal supplies of oil were available. It is uncertain whether or not loading facilities in United States ports would be adequate to provide for a substantial rise in the rate of shipment of coal to Europe, but it is fairly clear that some increase would be possible. This might well require further releases of ships from the United States reserve fleet; but dry cargo tonnage in the reserve fleet is far more plentiful than tankers and, in this case, lack of shipping probably need not prove a serious limitation.

The possibility can therefore not be excluded that a decrease in the supply of fuel oil will entail in western Europe a certain reduction of industrial output below the level that could otherwise have been attained. However, since the maximum duration of the shortage can be fairly clearly foreseen, it should be possible, within limits, to concentrate reductions in fuel supplies in each country on those industries where there is least danger that a fall in production will start a chain reaction spreading throughout the economy.

Any prolonged diversion of oil purchases to western hemisphere sources or any rapid growth of coal imports will add to western Europe's import bill in trade with dollar countries, while European earnings from the sale of Middle East oil for dollars will be reduced. Whether any further significant strains on the balance of payments of western Europe as a whole can be anticipated seems to depend essentially on the duration of the present atmosphere of general political tension, and on whether or not this leads to any upward pressure on prices of primary products or any significant intensification of the pressure of demand on western Europe's resources.

Freight rates will certainly be increased for the time being, because of the need to divert shipping from the Suez route, but western Europe is on balance a net exporter of shipping services. Increased foreign exchange income from higher freights should more than offset, for western Europe as a whole, any increase in ships' disbursements in overseas countries resulting from the lengthening of voyages. Nevertheless, the addition to total external expenditure may be significant for a number of countries which do not benefit from being net exporters of shipping services, such as Belgium, France, western Germany and Switzerland.

The rise in freight rates, and in the landed prices of imports, that can be expected may not in itself add significantly to production costs or final prices

in most western European countries, though a fairly high proportion of western Europe's imports of some materials (rubber, wool and jute in particular) are normally shipped through the Canal. Nevertheless, internal factors are already exerting some upward pressure on price levels in most countries, and many governments are already applying special measures in an attempt to achieve more stable conditions. In these circumstances, governments would probably be justified in taking steps to neutralize any impact on domestic price levels, at least until longer term tendencies can be more easily foreseen.

It is not easy to judge how these tendencies will affect the over-all balance of demand and supply in western Europe. Consumer outlays will be affected by the restrictions on private motoring already imposed or now in prospect, in nearly all countries. Some part of the reduction in expenditure on motor spirit and on related sectors of consumer outlay (e.g., motor cars and, possibly, hotel and restaurant services, etc.) may be matched for a time by increased savings; but some diversion to other sectors of consumption is likely. The possibility of some reduction in the rate of growth—or even in the absolute level—of total output, and the fact that much of the normal volume of expenditure on private motoring is in fact absorbed by taxation suggest that the change to be expected in the composition of consumption expenditure may have a net inflationary effect. However, this in itself may not be very serious, and if the tight credit conditions now existing in most countries are maintained it should be possible to avoid any wave of speculative buying, either of raw materials or of other goods, especially since the shortages ahead can be foreseen to be of limited duration.

The new state of tension in international relations of course involves the further risk of a general reinforcement of military expenditure. Any substantial increase in such outlay in western Europe, at a time when energy supplies may in any event limit total production, would restrict still further the resources available for civilian investment and consumption and make more difficult the task of maintaining internal and external economic stability. Military expenditure has already been increased in the United Kingdom and France, though the additions so far incurred are probably relatively small.[1] Increases in the less developed southern European countries, some of which have already felt compelled to carry heavy defence budgets, would be a still greater threat to their progress and stability, and this applies all the more, of course, to the still poorer countries of the Middle East.

Adverse economic repercusssions could also be expected in eastern Europe should recent developments lead to any significant increase in military expenditure in this area. The risks are illustrated by recent policy discussions in Poland and Hungary, from which it emerges that, at the time of the Korean conflict, the extra military outlay which was placed on top of an already ambitious investment programme contributed importantly to the subsequent decline in living standards and to other economic difficulties which, in turn, have played a role in the disturbances of recent months.

These comments are necessarily very speculative, since the reaction of governments to the new strains in international relations is not yet known, and efforts to reach agreement on disarmament may yet ward off this new menace to orderly economic development.

The succeeding sections of this review deal mainly with the economic trends in Europe that can be detected at the time of writing, and only the most general qualifications to take account of the probable impact of recent political events have been attempted.

[1] It has been officially stated that the cost to the Budget in the current financial year of the United Kingdom intervention in Egypt will be £35–50 million (i.e., little more than 1 per cent of total annual expenditure on goods and services by the central government).

2. The Impact of the Expansion on Western Europe's Trade and Payments

The Growth of Imports

From the start of the current period of sustained economic expansion in 1953 up to about the middle of last year, the flow of imports from the outside world into western Europe barely kept pace with the rise in industrial production; but in subsequent months the rate of increase of imports has accelerated, and has tended to exceed the rate of growth of industrial output.

In the early stages of the boom, as was explained in the *Economic Survey of Europe in 1955*, the western European countries were able rapidly to expand supplies of food, fuel, materials and equipment so that the needs generated by growing industrial output and rising incomes could be satisfied without a disproportionate increase in imports from the outside world. Trade among the countries of western Europe therefore expanded rapidly. Chart I and the following

figures show clearly the change that has occurred during the last eighteen months:

Percentage Change in Volume as compared with the preceding twelve months

	Calendar year 1954	*Year to mid-1955*	*Calendar year 1955*	*Year to mid-1956*
Industrial output in western Europe . . .	+9	+10	+10	+7
Intra-trade	+14	+15	+13	+8
Imports from the outside world	+8	+8	+12	+11
Exports to the outside world	+9	+6	+8	+8

Only very provisional indications of developments in the third quarter of this year are yet available, but it seems probable that these trends have continued except for exports to the outside world, which appear to have been rising less rapidly than before.

It is not possible on the basis of the trade statistics so far available to say with certainty which categories of products are mainly responsible for the speeding up of the growth of imports into western Europe, and for the slowing down of the expansion of intra-European trade, during 1955 and the first half of this year. However, it is clear that western Europe's rapidly increasing needs for fuel and the failure of coal production to expand in most of the coal producing countries of the area have been important factors. As can be seen from Table 1, western Germany is the only country in which coal output has increased significantly this year. Exports of coal by western European producers were about one-third less in the first nine months of this year than in the same months of 1955, and net imports into the area were more than 60 per cent greater; they were, moreover, more than four times as large as during January–September 1954.

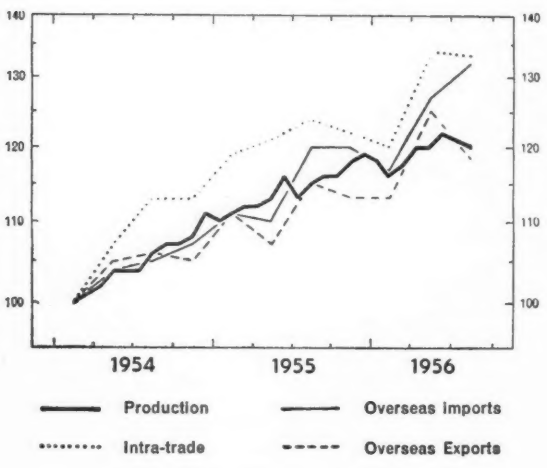
The rise in imports seems to have been sufficient to build up stocks in the hands of merchants and coal users to rather above last year's levels in most countries. In the United Kingdom, stocks at the beginning of the winter season (1 November) were higher than at any corresponding date during the post-war period,

CHART 1

Industrial production [a] and foreign trade [b] of western Europe

Volume indices, adjusted for seasonal variations, first quarter 1954 = 100

Semi-logarithmic scale



NOTE. — Trade data for the United Kingdom are not adjusted for effects of dock and rail strikes in the fourth quarter of 1954 and second quarter or 1955.

[a] Includes the following countries: Austria, Belgium, Denmark, Finland, France, western Germany, Italy, the Netherlands, Norway, Sweden and the United Kingdom.

[b] Figures relate to trade of OEEC member countries.

TABLE 1

Coal production [a] and trade in western Europe

Millions of tons

Country	Total production January–September			Net imports (+) or net exports (–) January–September		
	1954	1955	1956	1954	1955	1956
United Kingdom .	168.4	165.6	166.3	−10.7	−1.6	−1.9
Western Germany.	160.0	162.8	170.8	−5.2	+2.1	+5.1
France [b]	41.7	42.7	42.3	+3.7	+0.3	+8.1
Saar [b]	12.5	13.1	13.0	−2.8	−4.2	−2.9
Belgium-Luxembourg [b] . . .	21.7	22.0	21.9	−0.5	−2.6	−0.8
Yugoslavia . . .	9.9	11.4	12.1	+0.3	+0.5	..
Netherlands . . .	9.0	9.0	9.0	+4.0	+5.0	+4.9
Italy	1.7	1.3	0.9	+6.9	+7.7	+7.6
Sweden	0.1	0.1	0.1	+2.2	+2.2	+1.8
Austria	4.5	4.9	5.0	+2.8	+3.2	+3.4
Norway	—	—	—	+0.7	+0.7	+0.7
Denmark	—	—	—	+3.3	+3.8	+2.6
Total western Europe [c]	429.5	432.9	441.4	+8.5	+21.9	+36.0
of which: Imports from the United States .				+5.6	+16.4	+25.8

Sources: Quarterly Bulletin of Coal Statistics for Europe, and *Monthly Coal Statistical Summary*, ECE Coal Committee.

[a] Hard coal and brown coal added ton for ton.

[b] Trade between France and Saar, as well as that between Belgium and Luxembourg, is excluded.

[c] Including other western European countries.

and for western Europe in general the present stock levels should have been sufficient to ensure adequate supplies for the winter were it not for the additional demands now likely to arise from the prospective shortage of fuel oil. However, even before the recent developments in the Middle East the maintenance of adequate fuel supplies was expected to involve purchases of American coal amounting this year to about 40 million tons, as compared with 24 million tons in 1955.

Stocks of Hard Coal in Western Europe

	Thousands of tons		
	30 September 1955	30 September 1956	Percentage change
Pithead stocks			
ECSC countries	9 427	6 596	−30
United Kingdom	2 066	2 674	+29
Total distributed stocks			
United Kingdom	18 091	19 480	+8
Western Germany	5 690	7 937	+39
France	2 409 [a]	2 958 [a]	+23
Belgium [a b]	954	1 032	+8
Netherlands [b]	1 258	1 404	+12
Denmark	1 795 [c]	1 918 [c]	+7
Austria	439	593	+35
Norway	389	407	+5
Portugal	138	190	+38
Ireland	112 [a]	169 [a]	+51
Of which industrial stocks			
United Kingdom	4 291	4 289	—
Western Germany	2 958	3 788	+28
Netherlands [b]	363	354	−2
Denmark	..	151	..
Austria	98	122	+24
Norway	55	17	−69
Portugal	35	62	+77

Sources: *Quarterly Bulletin of Coal Statistics for Europe* and *Monthly Coal Statistical Summaries*, Economic Commission for Europe.

[a] Excluding industrial stocks.

[b] Figures refer to stocks at end of June.

[c] Including inferior coal.

Imports of oil into western Europe have also risen rapidly, and in the first six months of this year imports of crude petroleum into the six main importing countries were 10 per cent above the level of the first half of 1955 and 18 per cent above that of the same period of 1954. It seems that western Europe's increasing fuel requirements, combined with the failure to achieve any significant rise in coal output, may have added some $1,600 million to the area's annual import bill over the last two years.

The rate of imports of raw materials from the outside world accelerated considerably in the second half of last year; and, with the continuing boom in most of the continental countries during 1956, this tendency has almost certainly continued despite the absence of any increase in industrial output in the United Kingdom. The revival of textile production in continental western Europe after the prolonged stagnation during 1954 and 1955, and the need for some countries to re-build stocks of cotton which were reduced during the period of falling demand and uncertainty about United States export policies, have tended to increase imports of textile raw materials this year. Imports of raw cotton and raw wool into the six main industrial countries [2] rose by about 6 per cent and 3½ per cent respectively in the first half of 1956 as compared with the same months of 1955.

It was feared earlier this year that a continuation of the boom would bring a sharp increase in western Europe's needs for steel imports, since a fall in the rate of increase of indigenous production of steel seemed imminent. The growth of steel output has, in fact, been rather slower this year than last; but it has proved sufficient to provide for an increase in net exports in the first half of the year as compared with the first half of 1955, as well as for a further rise in deliveries to domestic users. The falling-off in activity in the metal-using industries in the United Kingdom in the first half of this year relieved the pressure on steel supplies in that country, and stocks at the end of July were very substantially higher than in July 1955.

Net imports of agricultural products into western Europe from the outside world are estimated to have been about 6 per cent greater in volume in 1955 than in the previous year, whereas they fell by about 3 per cent between 1953 and 1954.[3] Since total crop production in western Europe is estimated to have fallen slightly below the previous year's level in each of the years 1954/55 and 1955/56, while livestock production has continued to expand, it seems likely that the rate of total imports of food and feeding-stuffs may have continued to increase into 1956.[4]

While the accelerated flow of imports into western Europe during the past eighteen months can be partly explained by changes in specific sectors, especially fuel, it is possible that it also reflects to some extent a more general tendency for the growth of incomes and of aggregate demand (including export demand) to outstrip the rise in production in a number of countries. To what extent stockbuilding has contributed to the general rise of over-all demand and of imports during this year is impossible to say. In the United Kingdom, stocks of raw materials other than steel appear to have fallen during the first six months, but

[2] Belgium, France, western Germany, Italy, the Netherlands and the United Kingdom.

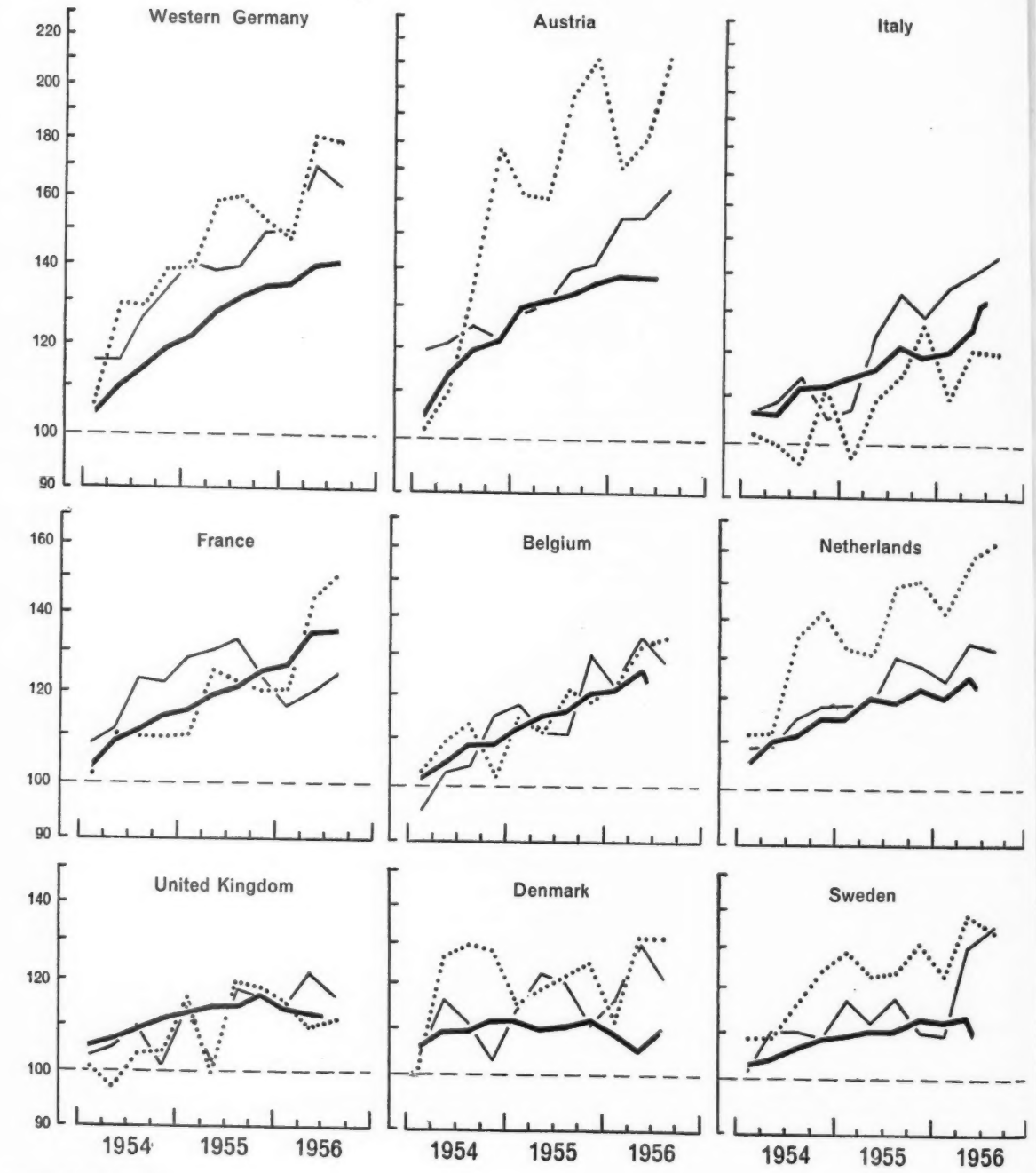
[3] See *The State of Food and Agriculture 1956*, FAO, 1956.

[4] Net imports of bread grain and coarse grain have in fact been at about the same level in the first half of 1956 as during the same months of 1955, but larger imports of meat (into the United Kingdom) and of other products may nevertheless have added to total food imports.

CHART 2

Recent trends of production and trade in selected western European countries

Index numbers (1953 = 100) – Adjusted for seasonal fluctuations
Semi-logarithmic scale



Sources : National statistics.

in most other countries data on stock movements are very deficient. It seems highly probable that some stock-building has taken place in France, where boom conditions have been pronounced and imports rising very rapidly. In some other countries the effects of credit restrictions and higher interest rates may well have produced a lower rate of investment in stocks than in 1955, or even some absolute de-stocking, though in the absence of any special discouragement stocks could have been expected to increase with the continuing growth of production.

Divergent Trends in the Trade of Individual Countries

In nearly every country in western Europe, western Germany being a notable exception, the balance of visible trade normally shows a deficit, with income from shipping services, tourism, overseas investments, etc., filling the gap. At a time of rapidly expanding imports, therefore, even a growth of exports at the same rate will not suffice to prevent a rise in the deficit on visible trade.

Both imports and exports have continued to expand rapidly in the recent past in most of the western European countries for which data are available, though France, the United Kingdom and Denmark are exceptions to this rule. The trends in nine countries are shown in Chart 2. A fall in industrial production below the level reached at the end of last year, and some decline in stocks of imported materials, have reduced imports into the United Kingdom during 1956 below the corresponding 1955 volume, and similar factors have brought about a reduction in Danish imports. But elsewhere imports have risen, and the rise has been especially rapid in three of the countries where the pressure of demand on resources has recently become most intense—France, Finland and the Netherlands.

All the major industrial exporters except France have increased the volume of their exports this year as compared with the same period of 1955, but the increases have not invariably kept pace with the rise in imports. As can be seen from Table 2, the disproportion in the rates of growth of import and export values has become greatest in the three countries just mentioned, while in Switzerland, where the domestic boom is also very strong, the value of imports has also been rising more rapidly than exports, partly as a consequence of worsening terms of trade.

Nevertheless, the positions in the table of the various industrial countries (either in the first group of countries, where the value of imports has risen relatively more than that of exports, or in the second group, where export values have increased in relation to imports) cannot be explained solely by the varying intensity of their domestic economic expansions. In a number of countries exports during this year have been affected by special factors. A fall in production of pig meat in Denmark prevented any rise in total exports of agricultural products; a fall in demand for timber, as well as the strikes at the beginning of the year, limited the rise in exports from Finland, and the weakness of the timber market affected Swedish exports also; in France, the lower exportable surplus of cereals, as well as the pull of rapidly growing home demand for raw materials and many manufactured goods, has helped to depress exports this year. In Norway, the exceptional growth of production capacity for exports of metals, following high levels of investment in past years, has been a major factor contributing to the very rapid rise in total exports, and Norwegian exports of metals and metal goods were 40 per cent greater in value in the first eight months of this year than during January to August 1955.

The restraint of domestic investment demand, as well as the growth of production capacity, may be partly responsible for the rapid rise in Austrian exports, to which greatly increased sales of machinery and other metal manufactures have made a major contribution. In the United Kingdom and Denmark also, deflationary policies have reduced home demand for industrial products this year below last year's levels. This no doubt helped to produce both the increase of 19 per cent in the value of exports of industrial goods from Denmark in the first eight months of this year as compared with the same months of 1955, and the rise in the total volume of United Kingdom exports during the first nine months of 1956 to 6 per cent above the corresponding 1955 level, which occurred in spite of the impact of new import restrictions in overseas countries on exports of some products.

Nevertheless, recent experience in these two countries suggests that a policy of restraint of home demand may not have a rapid effect on the rate of growth of exports unless either it is concentrated on those sectors of production for which export demand is already strong or it is accompanied by measures to stimulate investment in industries which can readily find export markets. In Denmark the rate of growth of exports of industrial goods, although high, has not increased this year. In the United Kingdom, the movement of labour and other resources from sectors of slack demand towards those where demand is strong is clearly proceeding rather slowly. The present rate of growth of total exports does not seem to be significantly faster than that registered between 1954 and 1955; and an examination of trends in a particular sector —the engineering, shipbuilding and electrical industries—shows that in the first half of this year falling

TABLE 2

Indicators of changes in the trade and payments position of western European countries in 1955 and 1956

Country	Terms of trade[a] (1953 = 100)		Percentage of value of imports c.i.f. paid for by exports f.o.b.				Surplus or deficit with EPU (Millions of dollars at quarterly rates)			Change in gold and foreign exchange holdings of treasuries and central banks (Millions of dollars at quarterly rates)		
	1955 First half	1956 First half	1955 First half	1955 Second half	1956 First half	1956 Third quarter	1955	1956 First half	1956 Third quarter	Dec. 1954 to Dec. 1955	Dec. 1955 to June 1956	May 1956 to Aug. 1956
France	103	100	101	104	82	80	+33	−112	−219	+117	−25	−248
Finland	96	94	89	114	76	101	..	..	..	+2	−20	+8
Netherlands	95	96	81	86	79	69[b]	+16	−40	−16	+3	−33	−84[c]
Switzerland	99	104	86	90	82	79	−17	−23	+24	+20	−12	+57
Denmark	99	97	87	90	86	82	−10	−9	−13	−3	+1	−7
Italy	98	98	64	73	65	71	−49	−43	+26	+49	+26	+113[f]
Belgium-Luxembourg	100	96	98	98	101	95	+38	+74	+47	+25	+32	+27
Western Germany	102	101	106	105	111	108	+90	+203	+265	+110	+235	+399
United Kingdom	103	101	76	79	85	82	−58	+1	−148	−161	+133	−57[f]
Austria	94	92	78	80	86	90	−20	−2	+24	−14	−	+47
Norway	92	89	56	61	61	69	−12	−4	+9	+7[g]	−2[g]	−3
Sweden	99	99	81	93	83	98	−6	−12	+20	−2	−18	+5
Turkey	88	..	57	69	79	43	−10	−12	−2	+2	−	−7
Portugal	95	101	75	68	66	64	−11	−12	−11	+4	+1	−8[c]
Greece	..	..	32	64	33	19[b]	+13	−4	−7	+14	+7	−5
Spain	120[d]	126[d]	84	62	63	..	..	..	..	+9	−7	−17[f]
Iceland	..	..	72	64	77	68	−2	−1	−1	−2	−1	−2[c]
Ireland	..	..	51	57	50	67[b]	..[e]	..[e]	..[e]	−5	−8	−11[c]
TOTAL of countries listed			84	88	84	84				+167[h]	+232[h]	+296[ch]

Sources: General Statistics, OEEC; *International Financial Statistics*, International Monetary Fund, and national statistics.

NOTE. — Changes in gold and foreign exchange holdings refer to end-of-month periods.

[a] A fall in the index indicates an improvement in the terms of trade.

[b] Figures refer to July–August only.

[c] Figures refer to the change from April 1956 to July 1956.

[d] First quarter only.

[e] Included in the United Kingdom.

[f] Figure refers to a change from June 1956 to September 1956.

[g] Changes in total reserves, including those of commercial banks, were +$7 million and +$11 million respectively.

[h] Figures refer to changes in gold and United States dollar holdings only (as reported by the United States).

demands for defence materials and consumer goods were not fully offset by rising exports and total production therefore fell.[5]

Exports of Manufactured Goods by the Three Major Exporters

The development of exports of manufactured goods by France, western Germany and the United Kingdom is illustrated by the figures in Table 3.

Western Germany remains one of the countries showing the most rapid rate of growth of exports in western Europe. To some extent, as is well known, the more rapid increase in west German export trade than in that of France and the United Kingdom is due to the greater orientation of west German exports towards the markets in the industrial countries of northern and western Europe which are expanding most quickly. To some extent it is explained by the smaller importance of textiles in west German trade and the greater importance of classes of goods for which demand is rising particularly fast, together with the more rapid increase in west German productive capacity in some of these sectors. However, none of these factors explains the stronger expansion of west German exports within each major commodity group and towards each main market area (see Table 4).

[5] *Bulletin for Industry*, issued by the British Treasury, September 1956.

TABLE 3

Exports of manufactured goods from three western European countries

Commodity and country	Value in millions of dollars in 1953 [a b]	Volume indices (1953 = 100)					Percentage share of total trade of three countries in each sector [b c]	
		1954	1955		1956		1953 Year	1956 First half
			First half	Second half	First half	Third quarter		
Chemicals								
United Kingdom	41.6	126	139	156	157	151	44	41
France	16.4	125	139	142	138	133 *	18	18
Western Germany	36.0	128	142	155	161	166	38	41
TOTAL of three countries	94.0	127	140	153	155	155 *	100	100
Textiles								
United Kingdom	75.9	97	91	95	89	84	52	49
France	48.9	111	107	102	94	100 *	34	31
Western Germany	20.0	129	135	152	138	144	14	20
TOTAL of three countries	144.8	106	103	105	98	100 *	100	100
Machinery								
United Kingdom	133.4	101	108	114	122	111	55	55
France	31.0	102	108	100	105	105 *	13	11
Western Germany	78.9	107	110	125	127	133	32	34
TOTAL of three countries	243.3	103	108	116	121	122 *	100	100
Transport equipment								
United Kingdom	77.6	107	114	114	130	113	64	54
France	17.7	119	143	119	136	130 *	14	12
Western Germany	26.9	161	217	219	253	241	22	34
TOTAL of three countries	122.2	121	141	138	158	146 *	100	100
All manufactures								
United Kingdom	489.4	104	110	117	122	112	55	51
France	130.8	109	113	105	102	103	14	11
Western Germany	275.3	127	140	159	163	171	31	38
TOTAL of three countries	895.5	112	120	128	132	129	100	100

Sources : National statistics.

[a] Monthly rate.

[b] The definitions of commodity groups vary somewhat from country to country, but it is unlikely that this greatly affects the reliability of the comparison of changes in shares over time.

[c] Based on current value.

The stronger attractions of the home market and the fall in export availabilities of some agricultural and other products are clearly responsible for part of the fall in French exports to practically every main market area.

A study [6] of the causes of the relatively greater growth of west German than of British exports undertaken earlier this year in the United Kingdom lays some stress on the effects of the pull of the home market in that country also, at least up to the end of last year, as well as on the "exceptionally vigorous" sales promotion efforts of west German exporters. The report also draws attention, however, to the more favourable trend of labour costs [7] in western Germany than in the United Kingdom in recent years due to a more rapid growth of productivity, possibly resulting to some extent from a higher rate of industrial investment.

It seems possible, however, that such margin as may have existed in the past between the rates of increase of wage costs in western Germany on the one hand and in the United Kingdom and France on the other, is

[6] See *Board of Trade Journal*, 28 July 1956.

[7] This comparison applied to the metal-using industries.

TABLE 4

Exports of the United Kingdom, France, Western Germany and the United States to principal markets [a]

Area of destination	Percentage increase in the value of total imports 1953–1955	Exports to each area as percentage of total exports in 1953				Value of exports to each area 1953 = 100							
						Western Germany		France		United Kingdom		United States	
		Western Germany	France	United Kingdom	U.S.A.	Second half 1955	First half 1956	Second half 1955	First half 1956	Second half 1955	First half 1956	Second half 1955	First half 1956
European sterling area [b]	+16	5	6	4	5	145	156	175	142	121	120	168	131
W. European industrial countries [c]	+25	29	12	8	9	146	162	162	149	113	123	140	171
Mediterranean countries [d]	+11	14	8	6	5	129	125	130	116	107	112	126	185
Scandinavian countries [e]	+25	14	4	10	2	136	150	146	125	113	124	158	153
Western Germany and Austria	+53	4	8	3	4	215	199	193	171	138	152	163	189
Total Western Europe	+24	66	38	31	25	144	153	162	143	115	123	148	166
North America	+6	7	6	13	26	155	159	124	118	115	129	110	133
Latin American republics	+15	10	6	4	25	125	126	107	73	103	126	112	123
Overseas sterling area	+19	7	4	45	7	170	176	121	128	118	117	119	143
Affiliated overseas areas	+13	2	34	2	2	159	167	113	112	120	115	88	112
Other overseas areas	+4	8	12	5	15	146	160	67	64	120	145	100	121
TOTAL WORLD	+16	100	100	100	100	147	156	128	119	117	123	119	137

Source: National trade statistics.

[a] Excluding trade with Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland, Rumania and the USSR.

[b] United Kingdom, Ireland, Iceland.

[c] France, Netherlands, Belgium-Luxembourg, Switzerland.

[d] Italy, Greece, Spain, Portugal, Turkey, Yugoslavia.

[e] Denmark, Sweden, Norway, Finland.

now being reduced. The following figures give some indication of the changes that have been taking place:

Index Numbers

(Same period of previous year = 100)

	1955		1956
	1st half	*2nd half*	*1st half*
France			
1. Wage rates	107	109	110
2. Output per man hour [a]	110	109	109
3. Ratio of 1 to 2	97	100	101
Western Germany			
1. Hourly earnings	106	107	109
2. Output per man hour	108	106	103
3. Ratio of 1 to 2	98	101	106
United Kingdom			
1. Hourly earnings	108	108	109
2. Output per man-hour [a]	104	102	100
3. Ratio of 1 to 2	104	106	109

[a] Changes in output compared with changes in the number of people employed after correction for changes in hours worked per week.

The figures can be regarded only as a rough guide to the changes in average industrial wage costs in the three countries. They suggest that rapidly growing productivity throughout the period under review has prevented any significant rise in wage costs in France. In contrast with the French position, however, concealed unemployment and under-employment in the United Kingdom, and the resulting failure of output per man-hour to increase over last year's level, may have caused labour costs to rise during recent months noticeably faster than before since the rate of increase of earnings has hardly changed during the period under review.[8] In western Germany there seems to have been a marked decline recently in the rate of growth of productivity, and wages have been rising somewhat faster than in earlier years. The implied current rate of increase in wage costs is still not as high as in the United Kingdom; but in both these countries it considerably exceeds the apparent rate of increase in France.

It would be premature to assume that these rather precarious calculations indicate the likelihood of any rapid change in the relative rates of growth of exports

[8] The apparent development of industrial productivity in the recent past may nevertheless give a somewhat misleading impression if regarded as an indicator of long-term trends in labour costs. Under-employment resulting from a tendency for some employers to hold on to surplus labour for a time, in the hope of a revival of demand for their products, should gradually disappear as either demand revives in the sectors where the under-employment now exists or labour moves to the sectors where demand is still rising strongly.

from these three countries, although prices of exports of manufactures seem recently to have been rising in western Germany about as fast as in the United Kingdom and France whereas west German prices were practically stable throughout 1955.

Unit Value Indices for Exports of Manufactures

1953 = 100

	1955				1956		
	I	II	III	IV	I	II	III
France	98	105	105	105	108	107	110*
Western Germany . .	98	98	98	99	101	102	102
United Kingdom . .	100	100	102	103	104	104	105

Changes in Balances of Payments

The changes in balances of payments and gold and foreign exchange reserves, which have in part resulted from the divergent movements in visible trade already mentioned, are illustrated in Table 2. Where reserves have been reduced in recent months, this has in most cases represented little more than a loss of some of the gains of last year. The rate, or persistence, of the drain on reserves has become serious only in France, the Netherlands and Ireland, and in the Netherlands the level of reserves in relation to imports is still reasonably satisfactory.

In all these countries internal policies have been adjusted with the object of checking the decline.[9] France, however, will clearly continue to lose reserves during the remainder of 1956. Recent official estimates suggest that the current account deficit for the whole year may reach $600 million and that over the year the reserves may fall by between $650 and $700 million (i.e., to about $1,500 million). In 1957, rising expenditure on military equipment and falling receipts from offshore purchases and other exceptional sources of income were expected, even before the Anglo-French intervention in Egypt and the closing of the Suez Canal, to contribute to a further drain.[10] The recent negotiation of a stand-by credit for $263 million from the International Monetary Fund has provided some reinforcement for the reserves, but there is no sign of any relaxation of the pressure of demand on resources, and it is doubtful whether any improvement in the competitiveness of French exports in the near future can be on such a scale as would produce a significant improvement in the underlying trade and payments relations.

[9] These have been discussed in earlier issues of this *Bulletin* and new measures recently foreshadowed in the Netherlands are referred to in Section 3 of this review.

[10] See *Economic Conditions in France*, OEEC, Paris, 1956.

The other countries which have recently been in a difficult position have in general experienced some improvement in their balances of payments in the recent past. The rise in the gold and foreign exchange reserves of the United Kingdom during the first half of 1956 was due almost entirely to an improvement in the current balance of payments of the United Kingdom itself, and especially to the change from deficit to surplus between the second half of 1955 and the first half of this year in its relations with countries outside the sterling area. The levelling-off of imports which was an important element in this improvement was directly linked with the fall in domestic output. Seasonal factors, relating both to the service of foreign debt by the United Kingdom and to the current balance of payments of the rest of the sterling area, would have been likely at least to reduce the rate of growth of the gold and foreign exchange reserves in the second half of this year, and some fall has already occurred. Recent developments in the Middle East may well cause a further deterioration—at least in the short run—as a result both of adverse capital movements and of some loss of oil revenues and increased payments for dollar oil.

In Norway, Sweden and Denmark also the current balance of payments deficits were smaller in the first half of this year than in the same months of 1955. Higher shipping earnings contributed to this result in all the countries concerned; and the rise in Norwegian exports and the fall in imports into Denmark have already been mentioned. Some fall in Danish reserves seems to have occurred more recently, but current trends do not suggest any serious deterioration in the position of any of these countries in the near future.

Most other countries outside southern Europe still seem to be in a fairly satisfactory balance-of-payments position, and in Italy the flow of economic aid, military receipts and foreign long-term capital seems likely for some time to suffice to cover the current balance-of-payments deficit and to build up reserves still further. But the west German surplus seems likely to continue for some time to come as a potential threat to economic expansion in western Europe.

If the slight signs of a slowing-down of the growth of demand in western Germany which are described in Section 3 of this review are significant, the rate of growth of imports may also slow down still further despite the effects of the new measures of liberalization of dollar imports introduced in July, the recent tariff reductions and a possible rise in payments for imports of defence materials. There is no sign yet of any slackening of export demand, and it is doubtful whether the recent developments in relative labour costs in western Germany and other countries, which

have been mentioned above, will have any rapid effect on the growth of exports. Recent steps taken to discourage capital imports may tend to reduce the over-all surplus, and large-scale foreign lending or further reductions in barriers to imports (especially of agricultural products) could help to reduce it further. The west German authorities are apparently already considering means of accelerating repayment of foreign debts, but no other action likely to have a significant effect seems to be in prospect.

The Dollar Balance

Nevertheless, so long as western Europe's over-all balance of payments with the outside world—and in particular the balance with the dollar area—remains satisfactory, the risk that divergencies in the balances of individual countries may lead to general deflation are greatly reduced. It was pointed out in the last issue of this *Bulletin* that the growth of western European exports, combined with a slight improvement in the terms of trade, had been sufficient to prevent any significant increase in the deficit on visible trade between the first half of 1955 and the same months of this year, although the apparent fall in the import deficit in the second half of 1955 had not been sustained. The partial data so far available for the third quarter suggest that the visible trade deficit with the world as a whole may have continued to increase, and also that a larger trade deficit with the dollar area may have been incurred.

Changes in the Balance of Trade and the Gold and Dollar Reserves of Western Europe

(Millions of dollars at quarterly rates)

	1955		1956	
	First half	*Second half*	*First half*	*Third quarter*
Visible trade deficit [a]				
With whole world .	1 515	1 225	1 515	1 760 *
With dollar area . .	806	760	759	900 *
Change in gold and dollar reserves	+100	+234	+232	+296 *

Sources : General Statistics, OEEC, and *International Financial Statistics*, IMF, Washington.

[a] OEEC countries only.

United States non-military grants and loans to western European governments were reduced by $250 million in the first half of 1956 as compared with the same months of 1955, and this fall was only partially offset by a rise of $75 million in military expenditure.[11] However, an increase in the flow of long-term private United States capital to western European countries and their dependent territories contributed about $105 million towards filling the gap. Higher interest rates in most western European countries during the past year may have played a part in attracting this increased flow of American private capital, and it may well be that the picture of sustained economic expansion presented by the western European economy during the past three years has also been a favourable influence.

The temporary slackening of activity in the United States at the beginning of this year was accompanied by a corresponding levelling-off of the rate of total imports from all sources during the first six months, though they were still well above the previous year's levels. Exports, stimulated by the effects of special efforts to dispose of agricultural surpluses as well as by the growth of world demand, rose more rapidly than imports from the first half of 1955 to the first half of 1956 and the total surplus of receipts over payments for goods and services increased considerably. None the less, the over-all United States deficit on current and capital transactions, including foreign aid, was about the same in the first half of this year as in the same months of 1955—thanks entirely to the record outflow of private capital—and total gold and dollar holdings outside the United States are estimated to have risen by more than $700 million in the first half of this year.

The increased over-all United States surplus on payments for goods and services during the first half of the year, together with the fact that aid is becoming increasingly tied to exports of American goods (e.g., through the programmes for disposal of surplus foodstuffs), attests to the desirability that hindrances should not be put in the way of the growth of the United States imports. In recent months exporters to the United States have, however, again been discouraged by the raising of protective barriers against imports of goods which were making headway in that market. The recent decision to increase tariffs on certain woollen goods is bound to affect western Europe's exports, especially those from the United Kingdom, but any direct reduction in sales may be less important than the cumulative effect of this and earlier similar decisions in discouraging European exporters' efforts to build up their trade with the United States.

Nevertheless, present trends in the United States economy, and especially the resumed growth of production, should provide in general a fairly satisfactory background for further economic expansion in western Europe. There have been indications of some improvement this year in the balances of trade and the gold

[11] See *Survey of Current Business*, September 1956.

and dollar reserves of the primary producing countries —including some of those countries dependent on exports of agricultural products which have been in difficulties in the past—and this, too, suggests at least no further worsening of western Europe's export opportunities in those areas. Recent events in the Middle East, however, constitute a new threat to the stability both of price levels and of balances of payments in western Europe which has already been referred to in Section 1 of this review.

3. The Industrial Expansion

Current Trends of Output

It is difficult to judge whether or not there has been any further slackening during the last few months in the pace of the industrial expansion in western Europe. In the United Kingdom there certainly seems to have been no recent change in trend, and industrial production during the third quarter of this year appears to have continued—as during the previous six months—at almost exactly the level of corresponding months of 1955. In the continental countries, however, the provisional indices so far available suggest that the previous rapid growth of industrial production in the area as a whole may have been halted—at least temporarily—during July and August (see Table 5).

It would nevertheless be decidedly premature to draw the conclusion from the figures in Table 5 that the current phase of industrial expansion in western Europe is now coming to an end. Indices of industrial production in July and August—the two main holiday months of the year—are notoriously unreliable indicators of underlying trends, and the apparent levelling-off of production may be attributable largely to a failure of the factors at present used to correct for seasonal influences to allow fully for the impact of longer paid holidays in some countries such as France. It is in fact difficult to find any other signs of more than a slight slowing-down of the rate of expansion, and the provisional results of output in September which are now available for a few countries generally record a further increase.

The variations during the recent past in the actual rates of growth of industrial production in the nine

TABLE 5

Industrial output in western Europe

Index numbers, seasonally adjusted
1953 = 100

	1954	1955				1956		
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	July–August
Total industrial production								
United Kingdom	108	113	114	113	117	114	113	112
Continental western Europe	109	117	121	124	126	126	132	132 *
Total western Europe	109	116	119	120	123	122	126	126 *
Metal-using industries								
United Kingdom	110	120	120	120	125	120	116	..
Continental western Europe	112	125	128	133	138	139	145	143 *
Total western Europe	111	123	125	128	133	132	134	..
Textile industries								
United Kingdom	103	103	102	98	103	101	103	95
Continental western Europe	106	106	106	106	106	109	114	114 *
Total western Europe	105	105	105	104	106	107	111	109 *
Chemical industries								
United Kingdom	110	115	117	114	120	118	120	124
Continental western Europe	117	124	131	132	131	132	141	158 *
Total western Europe	114	121	126	126	127	127	133	146 *

Sources and methods: Data taken from national statistics and adjusted for seasonal fluctuations by the ECE secretariat.

countries which contribute the largest shares to the total industrial output of western Europe have been illustrated in Chart 2 in the preceding section of this review. The upward trend appears to be strongest in France and Belgium,[12] and the remarkable growth of productivity which continues to contribute to this expansion in France has already been mentioned. No index of industrial production exists for Switzerland; but the continuing rapid growth of industrial employment (about 5 per cent above the corresponding 1955 level during this summer) suggests an equally strong expansion of output.

Industrial employment has remained well above last year's levels in every country except Denmark and the United Kingdom, and in most countries there have in recent months been fewer unemployed than at the same time last year.[13] Demand for labour remains especially strong in Belgium, France, the Netherlands and Switzerland; and in all these countries it is frequently alleged that shortages of labour—and especially shortages of particular types of skilled labour—must very soon force a marked slowing-down of the rate of growth of total output.

Scarcity of particular skills may already be setting limits to the rate of growth of output in some sectors in a few countries. It is possible also that in some countries—such as France and Belgium—part of the rapid rise in total output, and in output per worker employed, in the recent past was due to apparent gains in productivity resulting from the elimination of underemployment, and a reduction of employment on activities not directly contributing to final output (e.g., maintenance of buildings and equipment, which can be reduced or postponed for a time without any loss of efficiency).

The possibilities of benefit from factors of this kind may well be nearly exhausted by now in most of the countries where production has recently been growing most rapidly. Nevertheless, productivity should continue to rise as investment undertaken in the past bears fruit, and rising employment should also continue to contribute to the growth of industrial output, since the possibilities of increasing the industrial labour force are not in fact exhausted in any country. Immigration of foreign workers is still adding to the supply of manpower in France, Switzerland, Sweden and Belgium in particular; and a continuing movement of workers from eastern Germany is still supplementing the natural growth of the labour force in western Germany. Moreover, increasing employment of women in industry, which has recently made an important contribution to the rise in total industrial employment in western Germany, and the long-term movement of labour from agriculture to industry, which is still taking place in most continental European countries, may both be speeded up considerably under the influence of strong industrial demand for labour.[14]

It is probably true to say that at the present time France, Switzerland and, possibly, the Netherlands are the only countries in western Europe where the rate of growth of output is limited mainly by supply factors, rather than by demand. The pressure of demand on resources appears to be stronger in France than in any other western European country, and is reflected in the rapid growth of imports and the fall in exports already mentioned in Section 2. But in Switzerland and the Netherlands also strong demand on every sector of industry is accompanied by a tendency for imports to rise faster than exports.

In contrast with the strength of the boom in the countries just mentioned and in Belgium—where the initial impetus given by rising exports has now been reinforced by rising home demand both for consumer goods and for investment—signs of some slackening of the rate of expansion in domestic demand have appeared in western Germany. The slowing-down of the rate of growth of output and of productivity during this year may have been due in part to physical limitations; but in recent months a definite easing of the labour market has taken place. In September the number of unfilled vacancies dipped just below the previous year's level for the first time since 1952, and overtime working has been considerably reduced.

The reduced pressure of home demand in western Germany is also demonstrated by the more rapid growth of exports than of imports. In general the earlier investment boom seems to have been checked and consumption and exports are becoming relatively more important factors in the continuing expansion of output than they were during 1955 and the early months of this year. The flow of home market orders to the capital-goods industries fell below the corresponding 1955 level in August, and the latest IFO tests show a decreasing proportion of firms throughout

[12] Allowing for the imperfections of the indices for July and August.

[13] In Denmark, the United Kingdom, Norway and Sweden unemployment has been above last year's level during the summer; but in the last two countries it was nevertheless of negligible proportions, and in the United Kingdom it remained at little more than 1 per cent of the numbers employed. In Italy, statistics of unemployment show some increase over last year's levels; but other indicators suggest an improvement in the employment situation in northern Italy, though little significant change in the south.

[14] There has in fact been a noticeable increase in the rate of movement of labour from agriculture to industry in France during the last twelve months.

industry reporting relatively high stocks of orders and a rising proportion reporting that orders on hand are unsatisfactorily low.

Elsewhere, conditions seem to have changed little in recent months. A steady expansion affecting all sectors of industry, and based on rising demand both at home and for exports, continues in Norway. In Finland and in Sweden the rate of growth of total output still reflects to some extent the rather slack conditions in the world market for timber. In Finland the strength of domestic demand has maintained a strongly rising trend of production in all other sectors of industry and a fairly rapid rate of over-all expansion, but in Sweden the rate of growth of total output has slackened and in many sectors exports seem once again to be providing the major impetus.

Austria seems now to have joined the group of countries where total output has, at least temporarily, ceased to expand. The main reason for the check seems to be the reduction in domestic investment brought about by earlier disinflationary policies, but consumption of most durable goods has also stabilized or fallen slightly.

Of the two countries where output has for some time been stable or falling, Denmark and the United Kingdom, the first shows a slight improvement in the rate of industrial production apparently due to the growth of exports of industrial goods and to a slight rise in consumption, while investment activity remains very low. In the United Kingdom, as has already been mentioned, exports have continued to increase steadily, and were about 6 per cent greater in volume during the first nine months of 1956 than in the same months of 1955. Investment in manufacturing industry in the first half of this year is estimated to have been about 25 per cent greater than in the same months of 1955, and consumption of non-durable goods has also risen. But the increases in production for the investment sector have been barely sufficient to offset the effects of falling output of most durable consumer goods, especially motor-cars, and of defence material and equipment. Labour seems to have been moving slowly into the industries where demand remains strong, but the fall in demand elsewhere is still reflected to a considerable extent in lower output per worker employed and in higher unemployment.

Prospects for Consumption

The somewhat lower level of industrial employment in the United Kingdom this year as compared with 1955, together with some increase in short-time working and reduction of overtime must have meant that total earnings have risen by less than the rise in wage rates. Even so, there must have been some increase in total wage and salary incomes, though the increase in prices since last year has probably reduced to small proportions the rise in *per capita* real wages and salaries. It would be surprising if some increase in consumption did not eventually follow from the rise in incomes, and in fact there was a slight rise in the volume of retail sales during July to September over the previous year's levels. There has, however, been no significant change in the home market for passenger cars, or for other durable consumer goods, and it is too early to discern with any certainty signs of a new phase of increasing total consumption.

The recent imposition of restrictions on private motoring in a number of countries, and the possibility of a petroleum shortage lasting at least for some months, seems likely to have a discouraging effect on the European market for private motor cars in the immediate future. However, in most countries in western Europe, with the possible exceptions of Denmark and Austria, consumption in general still appears to be rising, and there seems little reason to foresee any spontaneous change in the upward trend. In most countries, wage rates or hourly earnings (in real terms) have been above last year's levels during 1956 (see Table 8) and higher levels of employment have added to the rise in the total incomes of consumers.

The Future Demand for Investment

The future trend of investment demand looks, however, to be more doubtful. In addition to the falling-off in home orders for capital goods in western Germany (illustrated by the figures in Table 6), orders in the house-building sector fell steadily from February until August. This was largely the result of difficulties in obtaining the necessary finance, and the Government now plans to provide additional assistance to encourage a revival of house building.

In Austria, investment activity is already below last year's levels, as it is in Denmark also; but in Denmark it has apparently been expected that total expenditure on construction and equipment would rise in the second half of this year,[15] partly as a result of the increase in farmers' incomes and despite the apparent intention of manufacturing industry to reduce its outlays. The rise in industrial building starts at the end of 1955 and in the first quarter of this year, together with the higher level of housing activity, gives some support to these expectations so far as construction is concerned, though the second quarter's figures for industrial building do not suggest a continuing

[15] See *Economic Conditions in Denmark, Iceland, Norway and Sweden*, OEEC, 1956.

TABLE 6

Orders received and stock [a] of orders for steel and metal goods

Volume or value indices, 1953 = 100

Index numbers of the stock of orders are underlined; volume indices are in italics

	Total orders						Home market orders					
	1955			1956			1955			1956		
	First quarter	Second quarter	Third quarter	First quarter	Second quarter	July–August	First quarter	Second quarter	Third quarter	First quarter	Second quarter	July–August
Steel mills												
Belgium	162	140	146	164	171	158						
Western Germany	*212*	*200*	*196*	*211*	*213*	*202*	*228*	*222*	*209*	*215*	*216*	*190*
Italy	*140*	*134*	*144*	*157*	*183*	*218*						
Saar	178	183	187	198	201	208						
Austria	*140*	*176*	*198*	..	..	..						
Metal-using industries												
Belgium												
Shipbuilding	89	196	199	547	397	65						
Machinery	126	138	126	187	162	166						
Vehicles	130	149	110	175	189	144						
Electrotechnical equipment	107	103	78	128	122	148						
Heavy engineering	127	138	132	175	168	167						
Total metal-using industries *excl.* shipbuilding	120	127	120	158	154	153						
Western Germany												
Machinery	*168*	*171*	*166*	*175*	*175*	*155*	174	174	174	180	178	159
Vehicles	*161*	*175*	*147*	*178*	*193*	*179*	131	147	127	144	154	140
Electrotechnical equipment	*153*	*148*	*147*	*157*	*163*	*146*	147	143	144	154	162	148
Metal goods	*138*	*141*	*141*	*137*	*153*	*145*	134	138	141	139	155	150
Steel constructions	*113*	*118*	*132*	*123*	*169*	*136* [b]	112	119	138	131	135	144 [b]
Total metal-using industries	*144*	*147*	*140*	*151*	*156*	*135*	150	154	151	158	165	152
West Berlin												
Machinery and vehicles	*166*	*172*	*149*	*168*	..	..						
Electrotechnical equipment	*210*	*161*	*167*	*170*	*171*	*150*						
Total producer-goods industries	*187*	*160*	*160*	*162*	*173*	*158*						
United Kingdom												
Machine tools	193	198	178	202	168	168	198	206	184	205	169	158
Machine tools	116	124	131	142	145	145						
Shipbuilding	195	181	178	229	216	..						
Netherlands												
Shipbuilding	113	109	134	161	167	..	136	129	141	187	184	..
Machinery	120	117	125	142	145	..	120	120	131	140	150	..
Transport equipment *excl.* shipbuilding	114	122	114	152	159	..	117	128	122	157	167	..
Electrotechnical equipment	117	133	136	139	160	..	118	138	143	152	178	..
Total metal-using industries	116	119	133	153	161	..	122	125	135	162	168	..

Sources : National statistics.

[a] End of period.

[b] July 1956.

TABLE 7

Indicators of building activity in certain western European countries, 1955 and 1956
Dwellings and industrial building

Percentage increase over same period of previous year

	Dwellings				Industrial building			
	1955		1956		1955		1956	
	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
Belgium								
Authorizations	−12	− 6	..	..	−3 [a]	+4 [a]	..	..
Completions	−5	−5	−7	−6	+7 [a]	+5 [a]	−3 [a]	+9 [a]
Denmark								
Authorizations	−23	+157	+111	+53	..	..	..	..
Starts	−34	+68	+50	+55	−8	+14	+20	−23
Completions	+5	+10	−21	−14	−21	−4	−26	+18
France								
Authorizations	−1	+26	+39	+27	..	..	..	..
Completions	+27		..	..	..	..	..	..
Western Germany								
Authorizations	+2	−2	−2	+8	+42 [b]	+45 [b]	+42 [b]	+14 [b]
Completions	—	+1	+10	+15	+16 [a]	+14 [a]	+30 [a]	+30 [a]
Italy								
Authorizations	−1	−1	+14	+3	−10 [a]	+5 [a]	+4 [a]	−11 [a]
Completions	+11	+33	+14	+11	+26 [a]	−16 [a]	+6 [a]	−23 [a]
Netherlands								
Authorizations	+64	−3	+22	+12	+33	+10	+60	+67
Starts	+42	+23	−8	+23	+16	−4	+101	..
Completions	−13	−3	+28	+14	+29	+28	−7	..
Norway								
Completions	−5	−15	−11	..	+31	−28	+6	..
Sweden								
Authorizations	−19	+55	−19	+48	−34	+46	+42	−30
Starts	−23	+31	+39	+37	..	..	..	..
Completions	−4	−23	+28	+15	+22	−64	+12	+56
Switzerland								
Authorizations	+15	−7	−15	−15	+8	+12	+1	+16
Completions	−8	−8	+6	−19	..	..	..	..
United Kingdom								
Authorizations	..	..	..	..	−1	−13	−10	−52
Starts	+2	+5	−1	−7	+90	−9	−20	−4
Completions	−12	−8	−18	+3	+39	+17	+28	..

Sources : National statistics.

[a] All non-residential building.

[b] Building for economic activity.

expansion (see Table 7). There is no evidence of rising output of machinery and equipment for the home market, but imports have increased.

Forecasts of future developments have also been made in the other Scandinavian countries.[16] In Norway, construction in 1956 as a whole is expected to be about 5 per cent below last year's levels, and investment in equipment (other than ships) is also apparently expected to be lower. Both construction and other forms of fixed investment are expected to be practically stable next year, with a further fall in housing activity making room for some further increase in industrial investment. In Sweden, a rise of 2 to 4 per cent over last year's level is expected for total fixed investment in 1956, and it is the Government's intention to hold about the same rate of growth in 1957.

In the United Kingdom it has long been expected that fixed investment in 1956 would be well above the previous year's level, and there seems no reason to foresee any other result. But the figures in Tables 6 and 7 confirm earlier indications of a probable fall in investment next year. Authorizations for industrial building have been falling steadily since the middle of 1955, and home orders for machine tools have also been falling recently. The latest inquiry into the investment intentions of manufacturing industry has revealed very provisional estimates of expenditure in 1957 which show a slight fall from the 1956 level, as compared with the 21 per cent increase which is expected from 1955 to 1956.[17] Moreover, the measures taken to restrain house building—reduction of subsidies, higher interest rates and credit restriction—have clearly already affected housing starts.

Higher building costs seem to have played a part in restraining the growth of house building in Switzerland in recent months, but demand for industrial building is very strong and the results of a recent inquiry suggested that total construction expenditure in 1956 would be some 14 per cent above that of 1955. A part of this rise can be attributed to price increases, but it undoubtedly also represents a considerable growth in the volume of activity.

The increase of investment demand as illustrated in Tables 6 and 7 seems to be strongest in the Netherlands and Switzerland: France, and possibly Belgium,[18] must be added to this group. In France, the construction of dwellings is being hampered by labour shortage. Building costs have recently been rising rapidly, and it seems probable that building resources are being spread too thinly over an excessive number of projects and that a temporary fall in the amount of new work started would have beneficial results in speeding up the rate of completions and reducing costs.

For investment in general, demand in France is very strong. However, the success of the recent public loan launched in order to cover the expected rise in defence expenditure has provided funds for the Exchequer amounting to double the fr. 150 milliard which were hoped for, and the liquidity of the banking system has been correspondingly reduced. This should reinforce the effects of the other measures of credit restriction introduced by the Government this summer, and may be expected eventually to have some effect on fixed investment. Nevertheless, experience in other countries suggests that this may take some time.[19] At a time of general prosperity and when high profits over past years have provided considerable possibilities for self-financing, many enterprises may be able to proceed with their investment plans even if their access to outside sources of finance is restricted, and rising interest rates may have only a very slightly discouraging effect.[20]

The present trends of demand for consumption and investment in most of the countries of western Europe, and the continuing growth of exports already mentioned in Section 2 of this review, suggest that little change in the rate of over-all expansion is to be expected in the near future unless a further easing of investment demand in western Germany, or the beginning of a positive decline in investment in the United Kingdom, bring about some further fall in the rate of growth of total output in those countries. Present indications suggest that such a fall may occur during 1957 unless either changing government policies or other events affecting business men's expectations of future conditions provide a new stimulus. But, in addition, the possible effects of recent events in the Middle East now constitute an additional source of uncertainty about the future.

At the time of writing it is uncertain how long the Suez Canal and the damaged oil pipe-lines will remain

[16] See OEEC report and *Konjuncturläget Hästen 1956*, Stockholm, 10 October 1956.

[17] See *Board of Trade Journal*, 8 September and 6 October 1956.

[18] Up-to-date indicators of investment activity in Belgium are scarce, but those which exist suggest a strong expansion. Home market orders on the metal-fabricating industries (which include some orders for consumer goods) were more than 20 per cent above the corresponding 1955 level in the first half of this year and consumption of cement was 13 per cent greater.

[19] Recent experience of the operation of monetary and credit policies was more fully discussed in the last review of current economic developments in Europe in the *Economic Bulletin for Europe*, Vol. 8, No. 2.

[20] The analysis in Chapter 4 of the *Economic Survey of Europe in 1955* suggested that in France enterprises have in fact been building up financial reserves on a considerable scale in recent years.

blocked or how serious the resulting loss of oil supplies and delays in delivery of other imports to western European countries may be. Some production difficulties in the short run seem inevitable, although the existing stocks of oil and the measures already taken by governments to enforce economies in consumption should limit the damage. Looking further ahead, it seems likely that fuel shortage may become a limitation affecting the future rate of production if the canal should remain closed for long, since sufficient shipping may not be available immediately to transport all the oil available from the Persian Gulf or the western hemisphere.

Leaving aside this major source of uncertainty, there have been few other factors indicating the probability of any abrupt change in the trends of output and demand described above.

Attempts to Check Price Inflation

There have been few significant changes in government policies in most western European countries during the last three months. In western Germany the discount rate was reduced from 5½ per cent to 5 per cent in September, partly in response to the relaxation of the pressure of domestic demand and partly as one means of discouraging slightly the inflow of short-term capital that has for some time been adding to the effects of the normal balance-of-payments surplus. Elsewhere, however, governments have in general been content to wait for the results of earlier measures designed to restrain the growth of demand or to exert a more directly stabilizing influence on price levels; but in the Netherlands the Central Bank discount rate has again been raised, in October, from 3¼ % to 3¾ %.

As can be seen from Table 8, the rise in wage rates (or hourly earnings) this year as compared with the corresponding months of 1955 has been at least as great as that registered between 1954 and 1955 in all countries for which data are available, with the single exception of the Netherlands. In a number of countries, the rate of increase of wages has almost certainly outstripped the growth of productivity; but France, Norway, Switzerland and the Netherlands are among the countries where wage costs have probably not risen significantly this year. However, such wage increases as have occurred seem in most countries to have had more effect on the prices of industrial goods entering into cost-of-living indices than they had during the preceding twelve months. These price increases may also reflect the stronger demand for the goods concerned (mainly textiles, clothing and household goods), which makes it easier for manufacturers to pass on the effects of rising wage costs.

TABLE 8

Changes in cost-of-living indices and earnings or wage rates [a]

Percentage increase over corresponding period of previous year

Country	Cost of living		Earnings or wage rates		Real earnings or wages	
	1955	1956 Available months [b]	1955	1956 Available months [b]	1955	1956 Available months [b]
Finland	97	109	105	105	108	96
Denmark	106	107	*104*	*106*	*98*	*99*
United Kingdom	105	106	108	109	103	103
Sweden	103	106	107	108	104	102
Italy	103	105	*104*	*104*	*101*	*99*
Ireland	103	104	106	109	103	105
Austria	101	104	104	105	103	101
Western Germany	102	103	107	109	105	106
Norway	101	103	105	105	104	102
Belgium	100	103	*101*	*112*	*101*	*109*
France	101	102	*106*	*109*	*105*	*107*
Netherlands	102	101	*105*	*102*	*103*	*101*
Switzerland	101	101	*101*	*102*	*100*	*101*

Sources : National statistics.

[a] Figures referring to wage rates are in italics.

[b] First quarter 1956: Denmark, Finland and Ireland;
First half 1956: France, western Germany, Switzerland and the United Kingdom;
January–July 1956: Belgium and Sweden;
January–August 1956: Austria and Italy;
January–September 1956: the Netherlands.

The rise in cost-of-living indices during the twelve months ending in the third quarter of this year has exceeded that of the preceding twelve months in every western European country for which estimates are available, with the exceptions of Denmark, Greece, Austria and western Germany (see Table 9). As in the previous year, higher food prices and increases in rents and in charges for fuel and light, transport and other services have all contributed to the rise in the indices in most countries. The price changes in these sectors are frequently the direct result of changes in government policies; but they also reflect to some extent the rising costs in non-industrial activities—where in general the scope for raising productivity is less than in industry—which result from a general upward drift of wage levels.

To halt or at least slow down the wage/price spiral has for some time been a major preoccupation of most of the governments concerned and in fact a considerable degree of stability of prices entering into cost-of-living indices has been achieved in many countries in recent months. In general, the increases in the indices

TABLE 9

Changes in cost-of-living indices in western European countries

Percentage increase of the third quarter [a] over corresponding period of previous year

Country	Food, drink and tobacco [b]		Industrial manufactures [c]		Housing		Fuel and light		Total [d]	
	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956
Finland	−3	12	−14	4	9	20	3	15	−4	12
Spain	4	8	2	2	1	1	..	..	4	6
Sweden	3	7	−1	1	1	12	4	12	1	6
Ireland	5	4	—	1	3	3	4	6	3	5
United Kingdom	5	4	—	5	3	6	4	12	4	5
Italy	2	4	—	—	9	36	—	1	2	5
Norway	−4	7	−1	1	3	3	10	10	−1	4
Denmark	7	2	5	4	6	4	9	26	6	4
Portugal	—	5	−1	—	11	2	2	—	1	3
Greece	4	4	2	—	50	—	5	2	6	3
Belgium	−1	3	−1	2	..	..	3	3	−1 [e]	3 [e]
Austria	2	2	1	3	—	2	1	−1	2	2
France	—	2	—	1	11	10	−2	−4	1	2
Western Germany	1	2	1	−1	1	8	1	2	2	2
Netherlands	1	5	—	−3	2	3	5	4	1	2
Switzerland	1	3	—	−1	4	3	1	3	1	2

Sources : National statistics.

[a] The comparison relates to the second quarter for Ireland, June–August for Belgium, France, Italy, Portugal, Switzerland and the United Kingdom, May–July for Spain and Sweden.

[b] In a few cases excluding drink and tobacco.

[c] For Finland, Greece, Ireland, Italy and Norway the series cover clothing, for Portugal and Switzerland clothing and shoes, and for the other countries clothing, shoes and household goods.

[d] Including other commodities, rent and services.

[e] Excluding rent.

shown in Table 9 were concentrated in the earlier months of the year.

Pressure for new rises in wages or reductions in hours has again appeared in western Germany and the United Kingdom, new negotiations will soon be taking place in Sweden, and in each case movements in the cost of living during the next few months will have some influence in determining the scale of the next round of wage increases. In France and Finland the cost-of-living indices are near the point at which general wage increases will automatically follow any further rise. In the Netherlands increases in rents, and the abolition of the milk and sugar subsidies to be expected in the near future, make it fairly certain that a new round of wage negotiations will take place next spring, and in Denmark also recent price changes suggest that a new cost-of-living adjustment to wages will soon be required.

In these circumstances, most western European governments are now applying policies designed to restrain the rate of growth of aggregate domestic demand; and to a greater or lesser extent are reinforcing these policies with measures which exert a more direct influence on prices. Price controls or the manipulation of indirect taxes and subsidies play some part in most countries. Increasingly liberal import policies also help to bring some pressure to bear on domestic price levels in France and western Germany, and are now under consideration in Norway; and in Norway a further tightening of credit restrictions is also envisaged as a means of checking any excessive increase in demand.

The budget proposals for 1957 which have so far appeared (in the Netherlands, Switzerland, western Germany, France and Austria) all foresee a continuing cautious policy. In the Netherlands, some increases in taxation are now in prospect and some additional measures to discourage investment are likely to be introduced.

More drastic proposals for wage and price stabilization—involving direct control of wages and prices and some blocking of profits—were put forward by the Belgian Government in October. The programme, which also included proposals for reductions in government expenditure in 1957, has encountered great opposition, and it is doubtful how much of the original scheme of direct wage and price control will survive. In Finland, however, the Government has

recently announced a general "price freeze"; and it is hoped that, if the cost inflation can thus be checked, at least temporarily, other measures already taken and the effects of rising output will suffice to restore general equilibrium.

Whether or not the efforts now being made in so many countries to restore a greater degree of price stability in western Europe can succeed depends above all, at present, on the effects of recent events in the Middle East and in Eastern Europe.

The probable impact of these events on the European economy has already been discussed in Section 1. There is some danger that if the disturbed situation in the Middle East and the generally more tense international political situation are prolonged for more than a few months, rising defence expenditure may add further to the existing overload on the economies of France and the United Kingdom in particular. The direct impact on western European price levels is likely to come mainly from rising freight rates, which are already approaching the peak levels reached during the Korean war and may be forced still higher by the increased expense of longer voyages and the intensification of the already acute shortage of shipping. So long as there is a chance that increases in costs of this kind may later be reversed, it would be reasonable for most governments, in present circumstances, to take steps to offset their effects on the general levels of domestic prices rather than to risk the danger of a new stimulus being given to the cumulative process of price-wage inflation.

4. The Development of Western European Agriculture

Changes in Prices of Agricultural Products

As has been mentioned in Section 3 of this review, higher food prices in every country in western Europe have contributed to the general rise in cost-of-living indices during the last twelve months; but this steady upward drift of domestic food prices is in no way a reflection of conditions in the world market for foodstuffs. During the 1955/56 season world prices for cereals generally continued their earlier decline until the first few months of 1956, since when there has been some recovery.[21] Tea, coffee and cocoa prices also fell during 1955 and the first half of this year and recovered only slightly during the summer; and sugar prices have generally been slightly below the previous year's levels.

Although world market prices of most of the basic foods have stopped falling, or have even risen slightly in recent months, the general level of prices of western Europe's imports of foodstuffs from the outside world has remained consistently below that of the previous year up to the latest date for which estimates are available:

Index of Import Prices for Foodstuffs

Quarterly (year 1953 = 100)

	I	II	III	IV
1955 . . .	105	96	96	94
1956 . . .	91	93	93 [a]	

Source: General Statistics, OEEC.

[a] July.

[21] Western European import prices have risen by more than f.o.b. prices as a result of the rapid rise in freight rates.

Agricultural prices in most western European countries are to a greater or lesser extent insulated from developments in the world market by protection afforded under the various systems used in those countries to support agricultural incomes, and, as can be seen from Table 10, the general level of farm prices has risen during the past year in nearly all countries.[22] But in addition, the recent trends of food prices paid by consumers reflect changes in processing and distribution costs, higher prices for home-produced vegetables and fruit in some countries [23]—due to the losses caused by the severe winter of 1955/56—and the impact of changes in government policies towards subsidies and indirect taxes. In some countries, notably the United Kingdom, Finland and Norway, consumer subsidies have been reduced as one element in a general policy of reducing consumers' purchasing power by budgetary means.[24] In some other countries, including France and western Germany, subsidies have been increased or indirect taxes reduced as a means of moderating the rise in the over-all cost-of-living indices; and in France more liberal policies towards food imports have likewise helped to stabilize consumer prices. In Belgium, recent statements suggest that similar measures designed to reduce consumer prices of food may soon come into effect.

[22] Ireland is an exception, where a reduction in guaranteed prices for wheat and falling meat prices in the United Kingdom market have reduced the general level of farm prices.

[23] In most countries, changes in prices of fruit and vegetables are not fully reflected in movements in the indices of farm prices.

[24] In Norway the recent increase in the milk subsidy constitutes a departure from this policy designed temporarily to relieve pressure on the cost-of-living index until more fundamental measures of stabilization can be put into effect.

TABLE 10

Agricultural price movements in selected western European countries

Latest available 3 months[a]
(percentage change since same period of 1955)

Countries	General index of producer prices	Prices paid to producers for Cattle	Pigs	Milk	Wheat
Austria	+3[b]	..	..	..	..
Belgium	+2	+1[c]	−10[c]	..	−3[c]
Denmark	+3	+8	+19	−11	+20
France	+1[d]	..	..	..	..
Western Germany	+12	+10	+15	+10	+12
Ireland	−10	..	..	..	..
Netherlands	+8[e]	+6	−3	−1	−2
Norway	+4	+8	−6	+18	−19
Sweden	+8	+12	..	..	..
Switzerland	+2[e]	+1	−4	+4	—
United Kingdom	..	−20[f]	+10[f]	+2	+23[f]

Sources: National statistics.
[a] May–July or June–August except when otherwise indicated.
[b] July.
[c] May.
[d] March.
[e] April–June.
[f] Excluding payments made under Government guarantees.

The changes in prices paid to farmers for a number of major agricultural products are shown in Table 10. Cattle prices have generally risen, as increasing consumer incomes and growing demand for meat have more than kept pace with rising production in most countries; but the United Kingdom and Ireland are exceptions to the general rule, since increased supplies from overseas countries reduced meat prices in the United Kingdom market. However, the fall of 20 per cent in cattle prices in the United Kingdom shown in Table 10 gives a most misleading impression of the effect on farm incomes, since the farmers are protected by government guarantees and deficiency payments from any significant fall in the actual prices they receive.

The movement of pig prices has been less uniform. Falling prices during 1954/55 had discouraged production in several countries—though their effect was to some extent offset by lower prices for feeding-stuffs also—and during recent months high demand for meat in general has further tended to reinforce the effects of smaller supplies and to raise pig prices in a number of countries. The effects of a fall in supplies and of rising demand were especially marked in the United Kingdom, western Germany and Denmark.

In practically every country milk prices are effectively determined by the government, and increases during the last year have been the general rule, though in many cases they have been somewhat reluctantly conceded. Rising costs of labour, and the importance of milk and milk products in total farm income in most countries outside the Mediterranean area, have produced a pressure for higher milk prices that has been difficult for governments to resist, yet in several countries the growth of production is threatening to produce surpluses that can only be absorbed if subsidies—either to liquid consumption or to the manufacture of milk products—are increased. In the United Kingdom, Norway and Italy such difficulties have already arisen, but in the Netherlands rising production and exports of condensed milk and milk powder appear to be providing a partial solution.

Wheat prices—like milk prices—are also fixed by the government in practically every western European country. Except in Finland, where agricultural prices in general rose sharply, guaranteed prices for the 1955/56 season were generally about the same as in the previous year or slightly lower; but actual prices in recent months seem to have been generally close to, or even above last year's levels.

The future trend of food prices in western Europe is not easy to foresee. If the general economic expansion continues, demand for meat and dairy products in particular will continue to increase and will tend to raise prices. Moreover, sales of butter from surplus stocks in the United States produced a downward influence on world butter prices last year which may not exist in future, since the stocks are now exhausted. On the other hand, the recent encouragement given to beef and pig production within western Europe—by rising demand and stable or falling fodder prices, as well as by government policies in some countries—should tend later to exert some downward pressure on European prices of meat.

So far as cereals are concerned, the large stocks still held in North America should prevent any rise in world prices. However, preliminary indications of world wheat stocks at the end of 1955/56 show a carry-over in the main exporting countries not substantially greater than at the same time last year, and this fact, together with the decision in the United States to maintain unchanged domestic support prices and to rely on the Soil Bank programme to reduce output, makes any significant price fall equally unlikely in the near future.

In many of the western European countries themselves governments are faced with increasingly difficult problems in the field of agricultural policy. Social and political considerations, as well as a desire in some

cases to limit their countries' dependence on food imports, dictate a policy of maintaining farm incomes or indeed raising them more or less in line with the growth of incomes in other sectors of the economy. Increases in wages of farm workers in many countries, and other increases in farming costs or in general price levels, have during the last year produced widespread demands for higher prices for farm products. To accede to these demands in present conditions frequently involves either a higher tariff or tighter import restriction (within the limits set by the international obligations of the various countries in these fields) or, alternatively, an increase in the subsidy bill. But any of these solutions are liable to lead to further difficulties—either a new upward pressure on the general price level, subsequent wage increases and a strengthening of any existing tendencies towards a cumulative cost inflation or an increased burden on the budget and possibly a need for offsetting economies in other expenditure or for tax increases.

To some extent the difficulties facing most western European governments in carrying out a policy of income parity for the agricultural sector are linked with the farming structure in these countries. In many cases a large part of the agricultural population is occupied on small farms where the possibilities of increasing productivity are limited, or which may be capable of being operated economically only in certain specialized lines of production. In fixing prices which are designed to give a " parity " rate of growth of income to most, even if not all producers, governments are therefore precluded from taking fully into account the average increases in productivity of the whole sector, from which only a minority of producers may have received substantial benefit. They may also have difficulty—as has already been noted in connection with the recent trends of milk production and prices— in securing the most economic pattern of prices and output.

Increases in the general level of farm prices do not in themselves provide any incentive to increase productivity, and the atmosphere of protection may in fact discourage efforts in this direction. However, some governments are apparently becoming increasingly discriminating in the measures used to support the real income of the agricultural sector, with the aim of encouraging greater efficiency and a more selective expansion of output.

In France, Ireland and the United Kingdom, policy aims at discouraging further expansion of wheat production in favour of fodder crops and meat. In Norway, general support for farm prices is being provided from a price equalization fund which has so far mainly operated to compensate differences between home and export prices for livestock products; and the changes in agricultural prices and specific subsidies this year have benefited especially milk production. The increase in subsidies to feeding stuffs has been of some help to meat producers also, although a refusal to permit an increase in meat prices has produced widespread complaints of hardship. The maintenance of parity between farm incomes and industrial wages is a principle of Finnish agricultural policy and has led to general increases in farm prices this year; and in Sweden also, the aim of the new price support system, which came into operation in September 1956, is to maintain an approximate income parity for the agricultural sector as compared with other groups. But in Sweden the intention of present policies appears to be to give protection mainly by tariffs, so as to secure a structure of relative prices for agricultural products which follows the pattern of development of world market prices, and the introduction of the new price support system has been accompanied by some liberalization of imports from other OEEC member countries. In the Netherlands also consideration is being given to the possibility of re-casting agricultural policies so as to encourage greater efficiency, and a price structure more in line with world prices, while at the same time maintaining farm incomes.

In a number of countries, although systems of direct price support for particular products remain an integral part of current agricultural policies, an increasing emphasis is being placed on such measures as offers of subsidies to encourage the use of fertilizers and better-quality seeds, the consolidation of land holdings, the conversion of land to more economic uses, and the reinforcement of agricultural extension services. In western Germany, France and Italy in particular, these are important elements in present agricultural policies, and they exist to some extent in most other countries also.

However, the most energetic pursuit of such policies can as yet offer little prospect of any immediate change in the general upward drift of food prices, and claims by farmers' organizations for new price increases in the 1956/57 season have already been made or can be foreseen with some certainty in western Germany, the Netherlands, Switzerland and the United Kingdom. Moreover, present policies seem likely to set limits to each country's absorptive capacity for food imports. This in itself is an important factor tending to inhibit the further liberalization of world trade and to increase the difficulty of rapidly adjusting disequilibria in international payments. The present situation in western Germany is an example of a case where commitments to protect domestic agriculture make it difficult for the government to take measures of

TABLE 11

Livestock numbers and cereals production in western Europe 1955-1956

Countries	Livestock numbers in thousands						Production of cereals *(Thousands of tons)*			
	Cattle			Pigs			Wheat		Other cereals [a]	
	Date of latest inquiry	1954 or 1955	1955 or 1956	Date of latest inquiry	1954 or 1955	1955 or 1956	1955	1956	1955	1956
United Kingdom	VI.56	10 668	10 915	VI.56	5 843	5 522	2 642	2 730	5 754	4 986
Ireland	VI.56	4 483	4 070	VI.56	799	741	415	400	829	..
Norway	VI.56	1 171	1 112	VI.56	464	510	30	50	324	458
Sweden	VI.55	2 555	2 575	VI.56	1 575	1 607	747	886	1 700	2 510
Finland	VI.55	1 885	1 902	VI.55	546	467	179	238	1 025	1 152
Denmark	VII.56	3 180	3 167	X.56	4 699	4 916	248	250	4 110	4 440
Netherlands	V.56	2 995	2 948	V.56	2 364	2 319	350	350	1 311	..
Belgium	V.56	2 393	2 411	V.56	1 419	1 470	575	530	972	..
France	X.55	17 332	17 560	X.55	7 328	7 570	10 379	5 532	7 750	13 719
Western Germany	XII.55	11 521	11 552	IX.56	15 174	14 470	3 378	3 487	8 055	9 626
Austria	XII.55	2 305	2 346	III.56	2 420	2 440	500	540	1 126	961
Switzerland	IV.56	1 583	1 645	IV.56	1 038	1 159	260	189	151	196
Italy							9 500	8 500	4 139	..
Spain							3 902	4 000	3 333	..
Portugal							394	508	893	..
Yugoslavia							2 430	..	4 831	..
Greece	XII.55	917	931	XII.55	603	603	1 330	1 280	722	688
Turkey	XII.55	10 867	11 160		—	—	6 900	..	4 846	..

Sources: FAO and national statistics.

[a] Including rye, barley, and oats for all countries, mixed grain for Sweden and Denmark and maize for France, Italy, Greece, Portugal, Spain, Yugoslavia and Turkey.

import liberalization which would both help to correct the chronic balance-of-payments surplus and assist in stabilizing the domestic price level.

The 1956 Harvest

The latest estimates of the 1956 grain harvest in western European countries are shown in Table 11. Most countries in western Europe, apart from Scandinavia, suffered from the effects of the hard winter and, except in the south, harvesting was delayed and crops were damaged by the heavy rains of late August and early September.

Such information as exists on the prospects for crop production in general suggests that home supplies in the coming season may be rather better than last year in the Scandinavian countries and that import requirements may therefore be somewhat reduced in 1957. In France, on the other hand, wheat production is estimated at little more than half last year's crop. Farmers are being at least partially compensated by higher prices, but the strain on the balance of payments is already being increased by the need to import wheat to meet existing export commitments. However, larger exports of coarse grains in the coming year may offset to some extent the need for wheat imports, and the yield of other crops, apart from vines and some other fruits in the south, is thought to have been favourable.

In southern Europe the picture is less clear, but it seems that a poorer harvest than last year's may have been gathered in every country in this area, with the exception of Portugal. However, in Italy the large carry-over of wheat from the season just ended should avert any significant need for imports during 1956/57.

The growers of olives, fruit and vines in most of this group of countries, as well as in France, have suffered a particularly bad season. In Spain, about half the orange crop was lost, and export earnings will be reduced as a result; but the latest reports suggest that in Turkey the fruit crop may prove to have been

rather better than usual, and in general the damage throughout the southern European countries is not as bad as was at first feared. On balance, some reduction of agricultural incomes and of exports may have to be faced in this group of countries, but not on a scale to cause serious difficulties next year.

It is now clear that, even after drawing on existing stocks, western Europe as a whole will need to import more wheat from the outside world during 1956/57 than in the year just ended. The sharp fall in French production is the main factor responsible; but the wheat crop is below last year's level in Switzerland, Italy and Belgium also, and in some of the northern countries especially part of the crop may be fit only for use as animal feed. However, the resulting increase in western Europe's import bill for wheat may well be offset, at least in part, by larger domestic supplies of coarse grain, since production appears to be rather above last year's level in nearly every country except the United Kingdom.

5. Agricultural Production in Eastern Europe and the Soviet Union

The 1956 Harvest

Only scattered and somewhat vague information is available on this year's harvest results.[25] It is clear, though, that the grain harvest was excellent in the Soviet Union and Czechoslovakia, and that the Soviet harvest was at least satisfactory in other branches of plant production—with the possible exception of vegetables (see Table 12). At the other end of the scale is Hungary, where the harvest was distinctly below average and well below the good 1955 harvest for bread grain, coarse grain and sugar beet, and satisfactory only for potatoes. The results were apparently about average in Poland and eastern Germany. The Bulgarian harvest of bread grain was bad and difficulties arose in the supply of bread and flour. These difficulties were removed by an agreement on deliveries of Soviet wheat on a loan basis. No information seems to have been published on either prospects or actual results of the Rumanian harvest.

The over-all result in the Soviet Union was heavily influenced by the good harvest in the areas in Kazakhstan and Siberia recently taken under plough. The opening-up of these regions is still in the pioneering stage, and harvest operations were run on the scale of a national campaign. High costs were incurred in the hasty despatch of equipment and in transporting the large numbers of temporary workers from west to east. The magnitude of these costs, but also their temporary nature, is thrown into relief by reports on the waste of " thousands of tons of petrol " because of the absence of signposts on the tracks in the new areas.

By early October, grain deliveries to the state from Kazakhstan, which accounts for the greater part of the newly ploughed virgin lands, amounted to some 22 million tons, that is, an amount virtually equal to the planned total crop (including farm consumption and free market sales) for which the 1956 plan had envisaged about 23 million tons. In the RSFSR, deliveries had reached some 39 million tons by early October, or 15 per cent more than planned and one-third more than the total amount delivered to the state in 1955. For the Ukraine, expectations just before the harvest were that deliveries would be around 20 million tons. On the basis of these provisional estimates for Kazakhstan, the RSFSR and the Ukraine, it seems that total state grain procurements this year will be well over double the amount which was regarded as normal in years before the virgin lands campaign.

Progress is reported to have been made in harvesting methods, and much of the credit for reducing harvest losses has gone to the recently introduced two-stage harvesting system whereby the grain is cut and laid in bundles before full maturity, left to ripen and then gathered and threshed by specially fitted combines.

Two important plans for further changes in the agricultural map of the USSR were announced in August and September. One is to reduce the wheat acreage in Georgia in favour of richer crops such as wine, tea and subtropical fruits. This is a complete reversal of the republic's six-year agricultural plan launched in 1950, which aimed at making Georgia self-sufficient in wheat. The policy now inaugurated is a return to the policies of the 'thirties, which aimed at reducing regional self-sufficiency in subsistence crops in the interest of a pattern of output more in line with climatic conditions. During that period there was a general northward movement of wheat production, and the Georgian grain acreage (at that time mostly maize) was being reduced.

The other scheme is probably even larger in scope. It consists in an extension by as much as 300,000 ha. of the cotton area by the irrigation and ploughing up of parts of the Hungry Steppe in Uzbekistan and southern Kazakhstan. This programme, scheduled to be finished by 1962, is expected to increase the annual output of cotton by 320,000 to 340,000 tons,

[25] For information on sown areas, see *Economic Bulletin for Europe*, Vol. 8, No. 2, p. 30.

TABLE 12

Preliminary appraisal of crop yields in 1956 in the Soviet Union and eastern Europe [a]

	Below average	About average	Above average	Exceptionally good
Soviet Union				
Grain [b]				×
Maize		×		
Cotton			×	
Flax		×		
Sugar beet		×		
Potatoes			×	
Vegetables		×		
Czechoslovakia				
Grain [b]				×
Sugar beet	×			
Potatoes				×
Poland				
Grain [b]			×	
Potatoes			×	
Sugar beet		×		
Hungary				
Grain [b]	×			
Maize	×			
Rice		×		
Sugar beet	×			
Potatoes		×		
Eastern Germany				
Grain [b]		×		
Potatoes			×	
Bulgaria				
Grain [b]	×			
Maize	×			
Sugar beet			×	
Cotton	×			
Albania				
Grain [b]		×		

NOTE. — These appraisals, many of which are based on various indications published during the harvest period, are necessarily provisional.

For Hungary and Poland, the following quantitative estimates of the harvest can be made (millions of tons):

	Hungary	*Poland*
Wheat	1.8	9.0
Rye	0.5	
Barley	0.63	3.0
Oats	0.16	
Potatoes	2.2	36.5
Sugar beet	..	7.2

[a] No information is available for Rumania.

[b] Excluding maize.

or nearly 10 per cent of the present cotton output of the USSR.

Milk—the Problem of Under-feeding

The favourable harvest in the Soviet Union and Czechoslovakia gives promise of higher output of animal products in the coming year. These are also the two countries where livestock production has developed distinctly favourably during the past year. The other countries of eastern Europe continue to be faced with difficulties in this sector, and in the case of Hungary prospects for the coming year appeared bad, even before the recent events.

The most startling development was in milk output in the USSR. Deliveries by the collective farms during the 11 months from 1 October 1955 to 31 August 1956 were 38 per cent higher than in the same period of the preceding year. The total quantity produced in collective farms was 15 million tons, a record for all the years since the beginning of collectivization.

Startling as it may appear, an increase of this order of magnitude within so short a period is not unheard of in other countries. But where it did happen, it was always in times of reconstruction following a period during which fodder supplies had fallen to abnormally low levels, while on the other hand herds of milch cows were kept more or less unchanged because the fodder shortage was believed to be temporary. In other words, such violent fluctuations in milk yields reflected the fact that it is uneconomical fully to adjust the number of milch cows to short-term fluctuations in the supply of fodder.

The really remarkable thing about the recent increase in Soviet milk yields is that it does not conform to this pattern. The circumstances under which it came about appear fairly clearly from the more detailed figures which are available for the Ukraine (Table 13).

It can be seen that after a period of several years, during which yields had climbed only slowly from an

TABLE 13

Number of cows and milk yields in Ukrainian collective farms [a]

Date	Number of cows *(Thousands)*	Year ending 30 September	Annual yield per cow *(Kg.)*
1 January 1951	980	1951/52	..
1 October 1953	1 770	1952/53	1 116
1 October 1954	2 110	1954 [b]	1 249
1 October 1955	2 390	1954/55	1 466
1 October 1956	2 700	1955/56	1 967

Sources : Sotsialisticheskoe Selskoe Khozyaistvo, No. 2, 1956, pp. 18–25; *Soviet News*, 16 November 1954; *Pravda*, 24 November 1956; Moscow radio, 15 October 1953 and annual Plan Fulfilment Reports of the Ukrainian SSR.

[a] Excluding cows privately owned by the farm members.

[b] Calendar year.

extremely low level while the number of cows increased at a remarkable rate, milk yields suddenly rose by 34 per cent between the years October-September 1954/55 and 1955/56. This change-over to a rapid increase in yields (and total output) is not, it seems, to be explained by a more rapid improvement in fodder supplies, but rather by the fact that the rate of increase in the number of cows has at last begun to decline. In other words, the recent increase suggests that during the last few years not only yields, but also the total ouput of milk, has been far smaller than it might have been if cow numbers had been kept at lower levels.

Although differences in breeds and in fodder composition make it somewhat hazardous to apply one country's experience in other countries, a rough calculation may still give some idea of the order of magnitude of the past loss involved. On the basis of Danish experience it can be estimated that in order to raise milk yields from 1,400 to 1,960 kg. an increase in fodder by no more than about 10 per cent is required.[26] Hence, if in 1954/55 the number of milch cows in Ukrainian collective farms had been 10 per cent smaller than it actually was, it should have been possible with the then available fodder to feed each cow as intensively as was done in 1955/56, and the total output of milk might have been more than 20 per cent higher than that actually achieved ($0.9 \times 1.34 = 1.21$).

The recent increase in Soviet milk yields thus seems to reflect the belated beginning of an adjustment of cow numbers to fodder availabilities so as to avoid under-feeding. There are two closely interrelated lines on which this problem needs to be attacked. One is to prevent the herds from increasing unduly fast, and the other is to spread the supply of fodder more evenly over the seasons. No up-to-date information is available on the seasonal variations of milk yields in the USSR but the figures for the Penza Oblast (which has soil and climate not dissimilar to that of the Ukraine) suggest that much still remains to be done:

Percentages of Annual Milk Production

	March–September (7 months)	October–February (5 months)
Penza Oblast, RSFSR [a]		
Average for Oblast	84	16
Efficient farms	67–75	25–33
Western Germany [b]	66	34
Denmark [b]	65	35

Sources: B. Smekhov, *Statistika i Planirovanie*, Moscow, 1954, p. 40; *Statistisches Jahrbuch für die Bundesrepublik Deutschland*, 1955; *Landbrugestatistik 1954*, Copenhagen 1955.

[a] Average for calendar years 1951 and 1952.

[b] Average for calendar years 1952 to 1954.

As already mentioned, fodder supplies in the Soviet Union show every sign of being still better this winter than last, not only on account of the good harvest, but also because of continued improvement in the preservation of green fodder for use in winter. It has been reported, for instance, that the amount of silage laid this year is double that of last year. It is therefore reasonable to expect that the increase in milk output will continue. The preceding remarks suggest, however, that the full advantage of an improved fodder situation will be reaped only if the increase in cow numbers is not regarded as an end in itself. In this respect, an important change of attitude appears to have recently taken place in the Soviet Union: in September 1953 a plan was laid down to increase the number of cows in collective farms at the formidable rate of 26 per cent within the space of one year. Fortunately, the actual increase turned out to be less than half the planned figure; and Mr. Khrushchev later sharply attacked those who go in for having many and meagre cows.[27] Nevertheless, the number of cows continued to increase at a rate which was probably greater than desirable for the best utilization of the available feed.[28]

[26] This is based on the rough empirical rule that maintenance fodder amounts to four feed-units a day (one feed-unit being the equivalent of 1 kg. of barley), and that, once the maintenance fodder is covered, there is a fairly big interval within which the marginal yields of additional quantities remain constant, each additional feed unit giving 2.5 kg of milk. The reasoning in the text implies the assumption that the present Ukrainian yield (just under 2,000 kg.) lies within the range in which this proportionality is valid. This seems reasonable, since in Danish conditions the marginal yield of additional fodder units is not believed to decline before an annual yield of about 3,000 kg. is reached.

The possible influence on yields of a change in the age distribution of cow herds was disregarded, since it seems that, even on extreme assumptions, this could account for an increase of only some 5 per cent in average yields from 1954/55 to 1955/56.

[27] "One of the reasons for the lagging behind in the output of livestock produce is to be found in the existence of grave shortcomings in the planning of numbers of stock. Heads of the Ministries of Agriculture and state farms have based themselves in their practical work on the wrong premise that the problem of stock farming can be solved merely through an increase in the number of livestock." (Speech delivered on 25 January 1955, at the Plenary Session of the Central Committee of the Communist Party, *Pravda*, 3 February 1955).

[28] For collective farms in the Ukraine the following rates of change can be roughly estimated on the basis of available information on numbers of cows, yields and output, and on the assumption that the input-output coefficients mentioned in footnote 26 are valid:

	Percentage change	
	1953/54 to 1954/55	*1954/55 to 1955/56*
Average number of cows	+16	+8
Average yield per cow	+17	+34
Output of milk	+36	+45
Input of feed [a]	+21	+19
Input of feed per unit of milk output	−11	−18

[a] In terms of feed units.

TABLE 14

Milk yields per cow in selected European countries

Thousands of kilogrammes

Country	Average 1934–38	1954
Czecholovakia . . .	1.9	1.6 [a]
Hungary	1.8 [b]	1.7 [a]
Austria	2.0	2.2
Finland	2.0	2.4 [a]
France	1.9	2.1
Ireland	1.8	2.1
Norway	1.7	2.3
Poland	1.6 [d]	1.6 [d]
Italy	1.6	1.8
Eastern Germany . .	2.6 [e]	2.5 [a]
Sweden	2.4	2.9
Western Germany . .	2.5	2.9
United Kingdom . . .	2.5	2.9

Sources: Pre-war figures: *European Agriculture—A Statement of Problems*, ECE/FAO, Geneva, 1954, p. 9.
Post-war figures: *Yearbook of Food and Agricultural Statistics*, FAO, 1955. **Czechoslovakia:** *Statistické Zprávy*, No. 1, 1956. **Western Germany:** *Statistisches Jahrbuch für die Bundesrepublic Deutschland.* **Poland:** *Rocznik Statystyczny*, 1955. **Hungary:** ECE document AGR/81, Corr. 2, 2 July 1956.

a 1955.

b 1936/37.

c 1952.

d Estimate for that part of the present Polish territory which belonged to Poland also in the inter-war period. A comparison between pre-war and post-war territories shows a big increase, from 1,400 litres in 1938 to about 1,750 litres at the present time. But this average is irrelevant in the present context, firstly because the territories incorporated in the USSR had particularly low yields, and secondly because the decline in cow numbers in the present Polish territory is highly concentrated in the recovered western territories, where yields were and are particularly high. When these two circumstances are taken into account, milk yields seem to have remained constant, or perhaps to have increased slightly as compared with the pre-war situation.

e 1938.

There is reason to believe that some eastern European countries are in a similar position of having herds of cows which are too big, in the sense that an increase of herds *pari passu* with improved fodder supplies is not to be recommended. *Prima facie* evidence for this view is given by Table 14 where present and pre-war milk yields in Czechoslovakia, Hungary, Poland and eastern Germany are shown together with figures for those western European countries where milk yields before the war were at a comparable level. It appears that in all those western European countries yields are now far higher than before the war, while in Czechoslovakia and Hungary they are considerably lower. On this background, it is not to be regretted that the number of cows during the last few years has been declining in Czechoslovakia and Hungary (see Table 15), since otherwise milk yields, and also the total output of milk, would probably have been even lower. However, the Czechoslovak plan for 1957 (as well as the Hungarian plan for 1956) call for a considerable increase in the number of cows. This may be quite possible to achieve in Czechoslovakia, in view of this year's good results in plant production, but even there it is doubtful whether such an increase is really desirable.[39] In Bulgaria, too, there seems to be a tendency to believe that an increase in the number of cows is desirable: at the July meeting of the Central Committee of the Communist Party it was noted with regret that milk yields in co-operative farms remain as low as 1,031 litres. But it was also deplored, somewhat inconsistently it would seem, that the number of cattle has decreased since 1952, and it was decided to take measures for increasing the herds.

In contrast with what happened in Czechoslovakia and Hungary, the number of cows in Poland has remained far below the pre-war level. It is of some relevance to the argument, however, that Poland is also the one among the countries here considered

[39] In a recent speech by the Deputy Prime Minister, Mr. Dolanský, the main stress still seems to be on increasing cow numbers: " For animal production, firstly, the number of cattle should be increased, particularly of cows. The number of cows has declined constantly since 1953 and this decrease has not stopped even in the current year. The plan for 1957, however, is intended to overcome this decrease and, on the contrary, there is to be a considerable increase in the number of cows. In the same way, an increase of yields of milk per cow is planned. The key problem in animal production is of course to ensure the fodder basis." (*Rudé Právo*, 15 September 1956).

TABLE 15

Number of cows and average milk yields in Czechoslovakia and Hungary

Year	Czechoslovakia		Hungary	
	Number of cows—end of year *(thousands)*	Yield per cow *(litres)*	Number of cows—1 March *(thousands)*	Yield per cow *(litres)*
1937	2 448	1 920	901	1 820 [a]
1948	1 871	1 340	..	..
1953	2 152	1 460	912	1 485
1954	2 096	1 510	871	1 630
1955	2 084	1 640	859	1 704
1956 First half . .	2 098 [b]	1 650	..	..
1956 Plan	2 119	1 780	891	1 790

Sources: **Hungary:** M. Matolcsy and S. Varga, *National Income of Hungary*, London, 1938, p. 96; ECE document AGRI/81, Corr. 2, 2 July 1956; *Statisztikai Szemle*, No. 1, 1956, pp. 7–8, and No. 3, 1956, p. 200; *Szabad Nép*, 18 November 1955 and 2 March 1956. **Czechoslovakia:** *Statistické Zprávy*, No. 1, 1956, pp. 7–8; *Rudé Právo*, 7 December 1955.

a 1936/37.

b End of June.

where milk yields are not lower—indeed, they may be slightly higher—than before the war (see Table 14). Even so, average milk yields in Poland remain very low, and it would seem that in this country, too, what is needed as the fodder basis improves is more intensive feeding rather than to step up the number of animals. This seems to be confirmed by the most recent changes: some increase in the number of cattle and a decline in milk yields. Thus, it is hardly convincing when it is now complained that, through an allegedly misguided price policy, the number of pigs has been allowed to increase inordinately at the expense of the number of cattle. It is, of course, another question whether a marginal amount of fodder now given to pigs might with more advantage have been used as winter-fodder for the existing herd of cattle. But even this appears to be doubtful in view of the importance of pig-meat as a source of foreign exchange, and in view of the fact that the consumer price of pork is by no means abnormally low in comparison with that of other animal products. It is also likely that *in the longer run* an increase in the number of cattle relatively to that of pigs is desirable, because it would necessarily be accompanied by an increase in the area under fodder crops (other than grain) at the expense of the grain area, with favourable effects on soil fertility. The first pre-requisite for this, however, is an improvement in grain yields.

The case of eastern Germany may at first glance appear somewhat more favourable than that of Czechoslovakia or Hungary, in so far as milk yields have returned to the pre-war level, which was high compared with eastern European standards. But, here again, the performance falls short of results in those western European countries which before the war were at the same level, and where yields have since then increased markedly. Moreover, the reasonably good results for milch cows, in spite of a pronounced shortage of fodder, have been obtained through the incentive provided by a very high milk price, and at the expense of slaughter cattle, the average weight of which declined by almost 30 per cent as compared with 1938.[30]

Trends in Meat Production

Meat production in Czechoslovakia has continued to increase, the increase being wholly accounted for by pig meat, of which almost twice as much was produced in 1955 as in 1936–1937 (see Table 16). The figure for the first half of 1956 suggests a further increase, considerably beyond that planned for the year.

[30] See also the article on " Structural adaptation in eastern and western Germany " in this *Bulletin*, section 4.

TABLE 16

Number of pigs and output of pork in Czechoslovakia

Year	Number of pigs at end of year (thousands)	Sows [a] as percentage of total	Output of pork (thousands of tons live weight)
1936/37 (average) .	3 134 [b]	15.0 [b]	252
1948	3 242	13.1	216
1953	4 174	12.0	356
1954	4 771	11.5	381
1955	5 285	10.0	455
1956 First half . . .	5 148 [c]	10.2 [c]	292

Sources: Statistické Zprávy, No. 1, 1956, pp. 7–8; *Zprávy Státního Úřadu Statistického*, 1936, 1937, 1938.

[a] Over six months old.

[b] Average of census 1 January 1936, 1 January 1937 and 1 January 1938 (weights ½, 1 and ½).

[c] End of June 1956.

The table shows that there has been a striking and consistent decline in the relative number of sows in Czechoslovakia, from 15 per cent as an average for 1936 and 1937 to as low a figure as 10 per cent in 1955 and 1956. This decline might possibly be explained by an increase in the slaughter weight or by a slower growth rate, but it seems more reasonable to assume that the decline in the relative number of sows reflects an improvement in the productivity of the breeding herd (more pigs per litter and/or more frequent farrowing), and a decline in pre-slaughter deaths. A decline in the relative number of sows of the order of magnitude indicated implies an important saving—probably about 10 per cent [31]—in the total quantity of feed required to produce a given quantity of pig meat.

In contrast with Czechoslovakia, the decrease, compared with the preceding year, in the Hungarian harvest, both of coarse grain and of potatoes, can probably not avoid having adverse effects on pig production. After the number of pigs had reached a high level in 1955—7.2 million in June and even 8.0 million in October [32]—it fell to 6.7 million in June 1956. Though a further absolute reduction did not appear to be necessary, it seemed unlikely that the autumn and winter months would show the usual seasonal increase. On the other hand, the numbers and productivity of cattle—which are of relatively small importance in Hungary—seemed unlikely to be

[31] This estimate is based on information in *Costs and Efficiency of Pig Production*, Ministry of Agriculture and Fisheries, London, HMSO, 1954, especially pp. 5, 16 and 18.

[32] This number was considered to be excessive and the subsequent decline was foreseen by the planning authorities.

affected by the bad harvest since grazing and production of green fodder have been satisfactory. Of course, the recent events have profoundly changed the outlook for Hungarian agriculture.

In Poland, the pig population has remained at its previous high level and the number of cattle has increased somewhat, though, as already mentioned, this has probably been at the expense of the output of milk per cow. Obligatory deliveries of milk are to be abolished as from 1 January 1957, and it is possible that this measure, if accompanied by an increase in the price paid to the farmer, will act as an incentive to a better utilization of available cattle fodder and/or a reduction of milk consumption on the farm. However, the immediate result of the announcement may be that farmers tend to delay deliveries both of milk and of other animal products in the expectation of a complete abolition of obligatory deliveries.

6. Agricultural Policies in Eastern Europe

The new collectivization drive described in some detail in the August issue of this *Bulletin* has continued in some countries. The two months of July and August alone brought an increase in the arable area of advanced-type co-operatives in Hungary by a further 3 per cent, and in Czechoslovakia the number of such co-operatives increased by almost 2 per cent between 1 July and 1 November.[33] In Bulgaria, where three-fourths of the land is already under co-operative farming, the declared policy is to create co-operatives on the remaining fourth in the course of the coming two to three years. Most of this land is semi-mountainous or mountainous, and the agricultural structure is very different from that in the lowlands. It remains to be seen what particular forms of co-operation will be proposed for these regions of extensive agriculture and dispersed settlement.

While the area under co-operative farming has thus been further extended, an increasing number of measures have at the same time been taken which modify the structure of co-operatives and the functioning of agricultural markets. The tendency of these measures in almost every case has been towards more flexible arrangements, and although none of them introduced radical changes, they did bear witness to an increasing awareness of the need to reconsider some general problems of agrarian policy. In Poland, a lively public discussion developed on the aims and methods of agricultural policy in general, and co-operative farming in particular, and the most recent developments in Poland seem to inaugurate important changes in agricultural structures.

Those more modest measures which have so far been taken in the various countries fall under three main heads: changes in the types and membership conditions of co-operative farms; changes in methods of planning in agriculture; and changes in policies of agricultural credit and in the allocation of means of production.

[33] For the extent of co-operative farming as of 1 July 1956, see *Economic Bulletin for Europe*, Vol. 8, No. 2, p. 31.

The Structure of Co-operative Farms

In Rumania some important changes have been made in the structure of co-operative farms. Hitherto, only two main types have existed: the collective farm proper (very much like the kolkhoz in the USSR) and the far less advanced "joint tilling co-operative". The latter, rather loose, type of co-operative has spread rapidly during recent years, while the number of advanced collectives has increased only slowly. As a result, the share of the collectives in the total area under co-operative farming decreased from 75 per cent by mid-1953 to 65 per cent at the end of 1955.

The changes that have now been introduced aim at making advanced forms of co-operation more attractive to Rumanian farmers as compared with the looser forms of co-operation. On the one hand, the statutes of the collective farms proper have been modified, notably by permitting the farmer to retain in individual ownership not only the farm buildings necessary for his own animals, but also other farm buildings and the farmyard, and by making it an obligation for the collective farm to distribute monthly or at least quarterly cash advances to the members instead of distributing cash incomes only once a year. On the other hand, a new type of co-operative farm, the so-called "co-operative farm of production with rent" has been created.

This new type of co-operative in Rumania is intermediary between the two types mentioned above. The most important feature relates to land ownership: although the land brought into the co-operative remains the individual property of the member (as in the "joint tilling co-operative") it is pooled and cultivated in common (as in the collective farm proper). There is this further difference from the "joint tilling co-operative"—that the member must bring in all the land which he owns at the time of entrance, as well as the land he may later acquire by inheritance. Another novelty is that the entrant's contribution to the common stock of capital is fixed in money terms and at a level strictly proportionate to the amount of

land brought in. If the entrant's actual contribution has a higher value, the difference has to be repaid by the co-operative within a certain number of years, and vice versa. This arrangement obviously aims at eliminating an otherwise existing disincentive for the owner of a particularly well-managed and well-equipped farm to join the co-operative. Finally, 25 per cent of the co-operative's net income (after deduction of 5 to 7 per cent for investment and other purposes) is distributed as rent in proportion to the amount of land brought to the co-operative.

Modifications on a somewhat similar line were introduced in September in Hungary where the lower types of co-operation, so-called " simple productive associations ", have been given an advantage (as compared with individually operating farmers) with regard to prices for MTS services and the supply of fertilizer, fodder and other materials. They were also authorized to process and sell their own farm produce; and some types (mainly associations specialized in fruit and vegetables) were given priority in the distribution of reserve land and exemption from land consolidation. Furthermore, new regulations decided upon in September made conditions for new entrants into the ordinary farm co-operatives more attractive: indemnities for cattle, voluntarily offered farm buildings, seeds and new plantations were to be paid out in cash; a double or treble rent value was to be fixed for vineyards and fruit gardens; advance payment was provided for in respect of expected income from labour already performed, and finally, payment of land rent to aged members was no longer to be dependent on active work in the co-operative.

In eastern Germany, some measures were taken to ease discrimination against private farmers (and as between small and big peasants) with regard to MTS tariffs, and a special favour was given to private farmers who pool their contracts. In Albania, finally, the Congress of Co-operative Farms held in September made some changes in the Model Farm Statute aiming at giving the farms a higher degree of self-government. At the same time, local acts of coercion upon farmers to join co-operatives during the intensive campaign earlier this year were disavowed.

All these recent measures in Rumania, Hungary, eastern Germany and Albania are thus to some extent similar in that they seek to take account of farmers' reluctance to join co-operatives of an advanced type by providing facilities for more modest forms of co-operation. The present trend is somewhat different in Bulgaria, where, as mentioned, the policy is to bring all land under co-operative farms, and in Czechoslovakia where there continues to be a strong official desire for the creation of new co-operative farms.

Planning Methods in Agriculture

Some attempts have also been made to introduce more flexible planning methods in agriculture, and to give co-operatives a higher degree of autonomy. Even before the recent events, Hungary appeared to have taken the most significant steps in this direction. In that country, the simplification of the previously extremely rigid planning procedures had already been going on for some time,[34] and more recently it was decided that for the agricultural year 1956/57 no control figures for sown area were to be established (except for bread grain), and that there were to be no control figures for livestock. After this reform, agricultural plans for co-operative or individual farms would essentially consist in schedules for obligatory deliveries with a more or less closely defined commodity composition; furthermore, in establishing these schedules the local councils were intended to be given more independence of the central authorities. In the same vein, Hungarian farm co-operatives were authorized to undertake such processing activities as the bottling of wine and the production of butter and cheese.

Polish farm co-operatives are now to be allowed to possess heavy machinery such as tractors and harvest-combines, and they are to be allowed to withdraw bank deposits for whatever purpose. In Bulgaria, as already mentioned, the aim is to bring practically the whole of agriculture into the co-operative system within the next few years. In accordance with this policy, " kulaks " are now permitted to enter the co-operatives (though not to hold the managing posts) and the financial obstacles which hitherto have prevented some particularly poor peasants from joining have now been removed. At the same time, Bulgarian planning methods have been simplified and made more elastic, in much the same way as in Hungary. The planning of average yields is to be given up, and the plan of each co-operative—which is to be worked out for a period of several years—will have to rely more on local natural and economic conditions. An important improvement in the internal organization of work in the co-operatives is expected from a wider use of the individual " work-accord " instead of the system of work-brigades, which is said to have had deleterious effects on effort, quality of work and work discipline generally.

Credits, Allocations and Subsidies

In several of the eastern European countries, the system by which capital is supplied to agricultural

[34] Out of 11,000 control figures laid down for the year 1953/54 (of which 6,000 were centrally approved) nine-tenths were abolished when the plans for 1954/55 were set up.

co-operatives has been extended and rationalized in some measure. In Hungary, it was decided to convert all outstanding long- and medium-term credits to a uniform period of amortization of 25 years and a uniform rate of interest of one per cent, and new credits were to be given of 20 to 35 years' duration for purposes of building, soil improvement and plantation, and credits of 10 to 15 years for the purchase of equipment and livestock. The allocation of building materials was improved by giving co-operatives a status of parity with the state sector. In Czechoslovakia, the amount of long-term credits to co-operatives outstanding on 1 July 1956 was 26 per cent higher than a year earlier (as against 16 per cent for private farmers) and co-operative farms wishing to improve their livestock can obtain grants covering up to 30 per cent of the cost. In Bulgaria, co-operatives in a difficult financial position have been exempted from repayment of part or the whole of their debts to the State, and for others the period of repayment has been prolonged. In future, long-term credits will be given for the purchase of livestock and other means of production and advance payments will be given up to a total of 50 per cent of the expected value of annual deliveries and sales.

There has thus been a fairly general trend towards easing the financial difficulties of the co-operatives, but it was only in Poland that the more fundamental questions of the aims and the limits of subsidies to co-operative farms was taken up for thorough discussion.

It is generally taken for granted, in the Polish discussion, that individual farmers and collective farms will in any event exist side by side for a long period, and that, if co-operative farming is in the end to prevail, it will have to do so by proving its economic superiority over individual peasant farming. This competition through efficiency has been falsified, it is now agreed, by the conditions under which co-operatives were often created and by excessive subsidies, credits and other forms of aid given to inefficient farms. In its turn, the fact that inefficient co-operatives could count on being kept afloat through official favours attracted those farmers to the co-operatives who rely more on state help than on their own efforts.[35] The main conclusion that seems to be emerging from this discussion is that only such co-operatives should be created or continued as can be expected to become economically viable without continuing subsidies in one form or another and that notoriously inefficient co-operatives should be disbanded—in the interest of agricultural co-operation. This, however, would not seem to exclude a government policy favouring the establishment of co-operatives through capital assistance for their basic investments.[36]

There may be a danger that the very harsh criticism now levelled against the Polish collectivization policy creates a somewhat exaggerated impression of the importance of the purely institutional factors as a cause of the bad performance of Polish agriculture during the last ten years. After all, only one-tenth of the area is under co-operative farming. The farmers who till the other nine-tenths may have been grossly disfavoured in the allocation of materials and equipment and may also have been deterred from longer-term investments by fear of collectivization, but the fact remains that, regardless of its distribution, the *total* supply of fertilizer, building materials, machinery and other means of production for agriculture was far too small.

[35] The mistake of collectivization policy was vividly described in the organ of the Polish Youth Association: " The majority of peasants joined co-operative farms to avoid repression and economic ruin. Some of them felt morally opposed to this step, because in the first years of collectivization co-operatives received the best soil in a village, soil taken illegally from the owners. This fact explains why many inefficiently run co-operatives none the less have higher yields than individual farmers in the same vicinity." (*Po Prostu*, No. 40, 1956).

[36] Cf. the following passage from Mr. Gomulka's speech before the Central Committee of the Party: " All sound producer co-operatives should receive assistance in the form of repayable investment credits, but the system of state grants should be abolished. On the other hand, credits should not be given to co-operatives which give no promise of development and which are only a burden on the national economy. It is for the members of these co-operatives themselves to decide on their dissolution. I think we should not waste state money on credits to unprofitable enterprises." (*Trybuna Ludu*, 21 October 1956).

7. Investment in Eastern Europe and the Soviet Union

The years 1954 and 1955 were a period of some relaxation in the drive for higher investment, during which efforts were concentrated on the completion of a restricted number of important projects, and some adjustments in the structure of investments were made in favour of agriculture and housing.

The plans for 1956, the first year of the new long-term plans, again laid down very ambitious programmes for the over-all volume of investments. It can be seen in Table 17 that in all the countries except Bulgaria the planned increase over 1955 was far beyond the increase that had actually taken place from 1954 to 1955. In Bulgaria, a planned decrease by 12 per cent was officially motivated by the need to allocate more resources to consumption after years of strenuous investment efforts, and, in fact, Bulgaria was the only

TABLE 17

Rate of increase in the volume of gross fixed investment in the Soviet Union and in eastern European countries

Percentage increase over actual investment in corresponding period of previous year

	Total			Building and Construction			Housing		
	1955 Actual	1956 Plan	1956 First half Actual	1955 Actual	1956 Plan	1956 First half Actual	1955 Actual	1956 Plan	1956 First half Actual
Soviet Union [a]	6	15	10	8 [b]	..	10	4	..	12 [d]
Bulgaria	21	−12	[c]	9 [e]	19 [e]	[c]	−3	..	..
Czechoslovakia	1	21	13 [f]	−3	13	9	9	..	[c f]
Eastern Germany	12	40	27 [f]	5	25	15 [f]	10	36	..
Hungary	−5	22 [g]	17 [f]	−6	..	—	3	70	20
Poland	3	8	[c]	..	..	−2	7	20	[c]
Rumania	11	21	[c]	15	..	[c]	..	..	..
Albania [b]	35	7 [h]	7	..	..	..	5	..	[i]

Sources: Plans and Plan Fulfilment reports; Bulgaria: *Ikonomicheska Misl*, No. 3, 1956, and direct communications from the Government; Czechoslovakia: *Statistické Zprávy*, No. 1, 1956, page 11, *Rudé Právo*, 25 November 1956; Albania: *Bashkim*, 8 February 1956, *Albanie*, 15 August 1956.

[a] State investment only.
[b] Ministry of Building only.
[c] Plan was not fulfilled.
[d] Dwelling completions only.
[e] Excluding building and construction in industry and agriculture.
[f] First nine months of the year.
[g] Including investment in agriculture financed by credits.
[h] Plan for first half year.
[i] Plan was exceeded by 10 per cent.

one among the eastern European countries in which there had been no levelling-off or decline in investment in the immediately preceding years.[37]

The actual results for the first part of the year show very considerable increases over the corresponding period of 1955 in investment in the Soviet Union, Czechoslovakia, eastern Germany and Hungary, but these increases, though impressive in themselves, fell short of the rates planned for the year as a whole, and for eastern Germany and Czechoslovakia the discrepancy between plan and performance is so wide that the fulfilment of the plan for the year as a whole seems to be unlikely. No quantitative information is available for Bulgaria, Poland and Rumania, but it has been announced in each of these countries that the plan was not fulfilled in the first half of the year.

The unusually severe weather in the winter months was, of course, among the causes of the fact that investments in the first part of the year fell short of expectations.

There have also been difficulties of an administrative nature. Delays originating in an administrative structure which is at the same time over-strained and over-developed have been the subject of much complaint, and the protracted preparation of blueprints and the insufficient co-ordination of plans amongst government agencies was often reported to have held back construction.

Difficulties in the recruitment of labour seem to have played a role in eastern Germany and Czechoslovakia. In the first quarter of 1956 there was a severe shortage of manpower for the Czechoslovak building industry, but in the second quarter the authorities succeeded in increasing significantly the number of workers, mainly through additions to the female labour force. The planned quota for 1956 for recruitment of women for the building trade is 6,700 persons, or some 2 per cent of total employment in building and construction. Furthermore, efforts are being made to improve the utilization of mechanical equipment in building.

The difficulties in the supply of building materials are probably more important than any of the factors mentioned so far. This is by no means a new problem. In Table 18 information is given about the rates of growth in building and construction and in the production of several building materials in some eastern European countries, partly in the most recent period for which information is available, and partly over a number of years. It appears that in both eastern Germany and Poland the output of several important types of building material lagged far behind during the long-term plan period ending in 1955.

[37] *See Economic Survey of Europe in 1955*, Chart 13, p. 227.

TABLE 18

Rate of increase in building and construction and in output of main building materials in some eastern European countries

	Volume of building and construction	Production of :						
		Cement	Lime	Bricks	Tiles	Pre-fabricated building parts	Window glass	Tar paper
First half of 1956								
Czechoslovakia								
Index numbers (1st half 1955 = 100)	109	104	112	112	107	102	105	..
Percentage of plan fulfilment	96	100	[a]	94	88	[a]	..	..
Eastern Germany [b]								
Index numbers (quarterly average 1955 = 100)	115	115	..	..	..	163	..	..
Percentage of plan fulfilment	97	[c]	[a]	[a]	[a]	..	..	..
Poland								
Index numbers (1st half 1955 = 100)	98	111	95	97	..	..	110	116
Percentage of plan fulfilment	98	101	88	92	[a]	..	..	103
Results of the last long-term plans								
Eastern Germany (1951-1955)								
Index numbers 1955 (1950 = 100)	173	210	164	145	112	..	108	132
Percentage of plan fulfilment	67	73	..	60	50	..	..	..
Poland (1950-1955)								
Index numbers 1955 (1949 = 100)	287	163	146 [d]	225	168 [d]	..	151	215
Percentage of plan fulfilment	102	77	79	85	..	..	68	62

Sources : Plans and Plan Fulfilment Reports: *Statistické Zprávy*, Prague, No. 1, 1956, *Statistische Praxis* No. 7, 1956, *Wiadomosci Statystyczne*, Warsaw, No. 1, 1956, *Rocznik Statystyczny*, Warsaw, 1955, p. 78.

[a] Plan was not fulfilled.

[b] First nine months of 1956.

[c] Plan was more than fulfilled.

[d] 1954.

The situation is particularly difficult with regard to cement in Poland, in spite of some improvement from 1955 to 1956. The lack of cement has an unfortunate effect on the building industry, because it prevents the introduction on a large scale of modern building techniques.[38]

The difficulties in the supply of bricks, lime and tiles may partly be traced to the decline in output from numerous small-scale enterprises producing for local needs and particularly for rural construction. While production on private account was discouraged by high taxation and other administrative measures, these enterprises were, on the other hand, too small and dispersed to be run under state or co-operative management. It was also thought that production in these enterprises involved an uneconomical use of scarce fuel resources. However, there are some signs[39] that a change in attitude is under way. It seems that it is now being realized that, whatever the case may be for large-scale production of building materials in the longer run, the closing-down of the small local enterprises has prevented the full utilization of available raw materials and manpower, and that the saving in fuel may have been more than offset by increased transport costs to and from larger production units.

Construction of Dwellings

In the first half of 1956, the rate of dwelling construction was unsatisfactory in Hungary and Poland, but satisfactory in the Soviet Union, eastern Germany and Czechoslovakia. In the last-named country, the increase was concentrated in the private sector.

For the Soviet Union, the directives on the Sixth Five-year Plan call for the building at state expense of 205 million m² of housing during the five years 1956 to 1960. This is double the figure planned for the preceding five-year period and represents an annual

[38] In Poland, the use of cement per 1 000 clay bricks decreased from 1,763 kg. in 1950 to 1,487 kg. in 1955. During the same years it increased by 44 per cent in Yugoslavia, by 25 per cent in western Germany, by 11 per cent in France and by 9 per cent in Belgium (see *Gospodarka Planowa*, No. 9, 1956, p. 8).

[39] The Polish Government urged local governments, co-operatives and private persons to revive production in the abandoned small plants and promised help in the form of fuel, credits and technical assistance. The Soviet Government has similarly encouraged the creation of small building materials yards based on local materials.

average some 70 per cent higher than the floor space actually completed in 1955. If this average result for the five-year period were to be achieved through equal percentage increases in each of the five years 1956 to 1960, an annual rate of increase of 18 per cent would be required. The actual increase for the first half of 1956, as compared with the first half of 1955, was 12 per cent,[40] a considerable increase in itself, though lower, it would seem, than required by the five-year plan. This result for the first half-year may, however, be of limited significance, since it can have been influenced, in either direction, by a change in the seasonal distribution of completions which is very uneven in the Soviet Union.[41]

There may also have been some shift in the seasonal distribution of completions in Czechoslovakia, where the total number of dwellings completed in the first half of 1956 was 65 per cent above the figure for the first half of 1955 (see Table 19). Even so, there was probably also a genuine increase in the amount of dwelling construction performed. The particularly strong increase in private construction of dwellings suggests that the improvement is largely due to recent measures of decentralization in the planning and financing of house construction.

In Hungary, the plan for 1956 called for the completion of 40,000 dwellings, or almost 45 per cent more than in 1955. In the first six months no more than 7,500 dwellings were actually completed and even before the uprising it seemed unlikely that the plan for the whole year could be fulfilled.

In Poland, too, the construction of dwellings in the first eight months was below expectations. The efforts to shift resources to housing and rural construction do not seem to have yielded satisfactory results so far. In fact, the immediate result of administrative changes introduced during the year may have been to create some transitional difficulties which made it impossible even to maintain the rate of completions of the previous year.[42]

TABLE 19

Completed dwellings in the Soviet Union and some eastern European countries

	1955		1956	
	First half Actual	Whole year Actual	First half Actual	Latest plan for whole year
Million m²:				
Soviet Union				
State construction [a]	6.0	23.9	6.7	29.0 [c]
Private urban [b] . .		8.4		..
Czechoslovakia				
Total	0.62	1.99	1.07	..
of which:				
State	0.43	1.25	0.40	1.40
Thousand dwellings:				
Czechoslovakia				
Total	16.2	50.6	26.4	53 [c]
of which:				
State	12.3	35.2	11.3	35
Private	3.8	15.4	15.1	18 [c]
Hungary				
Total	..	28.0	7.5	40.0
Thousand rooms:				
Poland				
Total urban areas .	..	165.5	..	175 *
of which:				
State	50.9 [d]	148.1	49.3 [d]	..
Co-operatives	..	2.9	..	..
Private	..	14.5	..	..

Sources: Plans and Plan Fulfilment Reports; Soviet Union: *Statistica Yearbook*, Central Statistical Office, Moscow. Czechoslovakia: *Statistické Zprávy*, No. 1, 1956, Table 7. *St. v. bnlk*, 1 October 19 6. Hungary: *Szabad Nép*, 9 July, 19 August, 17–18 November and 30 December 1955, 22 January, 19 February, 27 April and 11 June 1956. Poland: *Nowe Drogi*, No. 3, 1956, page 79.

[a] State funds.

[b] Urban population from own resources or with State credits.

[c] Estimate on the basis of plan for 1956 to 1960, assuming uniform percentage rate of increase during the plan period.

[d] In first eight months of the year.

[40] The figure refers to total construction of dwellings by the State and by private builders in urban areas.

[41] It seems that normally only a quarter or so of annual completions fall within the first six months of the year.

[42] The Ministry of Industrial Construction and the Ministry of Housing were merged into one, and at the same time a simplification of the administrative machinery of various subordinate services was carried out.

8. THE FUEL PROBLEM IN EASTERN EUROPE

Developments in industrial production, employment and productivity in the first half of 1956 were described in the August issue of this *Bulletin*. Little information is available on industrial production in the third quarter.[43] It is clear, however, that industrial production was increasingly being hampered by the shortage of energy, especially of solid fuel.

[43] Reports on plan fulfilment in the third quarter have been published only for Bulgaria, Czechoslovakia and eastern Germany. In Bulgaria, the plan was more than fulfilled, and industrial production in the first nine months was 15 per cent higher than in the same months of 1955. In eastern Germany, output fell short of the plan by about 3 per cent in each of the three quarters. In Czechoslovakia the plan was fulfilled by 102.5 per cent in the first nine months of 1956, and industrial production was 10 per cent higher than in the same months of 1955.

Generally speaking, production of coal seems to have reached a ceiling where no significant further increase can be achieved without considerable investment. The increase in production through higher labour input, whether by new recruitment or by longer hours and work on Sundays and holidays, is scarcely possible. The necessity for larger investments in coal mining is generally recognized, and the plans provide for considerable increases. But the extension of mining capacity is a process which gives results only after a considerable lapse of time.

The low supply elasticity for coal is of course not characteristic of eastern Europe alone. There are also complaints about difficulties in increasing labour productivity in the Donbas coal fields, and in western Europe coal production has been stagnating in recent years. There are, however, two reasons making coal demand in western Europe increase more slowly as compared with industrial production than in eastern Europe. Firstly, the increase in industrial production is less heavily concentrated in basic industries which require much fuel, and, secondly, the substitution of oil for coal is proceeding at a rapid rate.

The most important single factor in the eastern European fuel problem is, of course, Polish coal mining, the performance of which affects not only Poland itself, but also eastern Germany and Hungary, which are dependent on imports of fuel.

It is expected that coal output in Poland in 1956 will amount to 96 million tons, which is one million tons less than planned for the year and only 1.5 million tons more than in 1955. This increase is no more than what is required to cover additional allocations of coal for domestic fuel. At the same time, allocations for industry and transport have had to be increased. As a result exports of hard coal have been reduced to a level almost 4 million tons below that of 1955.[44] Even so, the supply situation in Poland remains precarious and the Government has issued an appeal for economy in the use of fuel and created a special commission to deal with the energy problem.

It was realized in Poland that there were virtually no possibilities of stepping up coal production by attracting additional labour through normal methods of recruitment,[45] and that an increase in hours worked is neither possible nor desirable. In fact, out of the 20 million tons by which coal production in 1955 exceeded that of 1949, as much as 15 million tons was due to work outside normal working hours.[46]

In Czechoslovakia, production of hard coal just reached the planned amount (11.8 million tons) in the first half of 1956, and this was achieved only by extensive work on Sundays and holidays and by mobilizing " shock brigades " recruited outside the coal industry.[47] In the following four months (July-October) output of hard coal remained considerably below the plan in spite of all emergency measures. Production of brown coal was slightly better than planned, but this could only partly fill the gap in hard coal.

Plan Fulfilment in Coal Mining in Czechoslovakia, July–October 1956

	Percentage
Hard coal, total	95.4
Of which, Ostrava Karvina district [a]	94.9
Lignite	97.0
Brown coal	103.2
TOTAL (ton for ton)	100.3

Source : Hornik, Nos. 32, 35, 40 and 44, 1956.

[a] This district accounts for about 80 per cent of total hard coal production in Czechoslovakia.

The nature of the difficulties encountered in Czechoslovak mines is illustrated by the fact that output per man employed in the period January–July 1956 was 3 per cent lower than in the same period of 1955, while average wages per man employed were almost 10 per cent higher. As in Poland, absenteeism seems to be a grave problem.[48]

Though very small in relation to total production and consumption of fuel, east German imports of high-quality coal from Poland are nevertheless essential for production of metals and gas for the Berlin power stations. In addition to the delays in Polish hard-coal deliveries, the east German fuel balance was affected also by the failure of brown-coal production to increase according to expectations. Output in the first nine months of 1956 was only 2.6 per cent above the level of a year earlier, which is no more than half the annual rate of increase prescribed by the Second Five-year Plan. Similarly, the increase in power production (5.8 per cent) was far below the plan for the year (11.5 per cent), owing

[44] See *Economic Bulletin for Europe*, Vol. 8, No. 2, Table 16, p. 27.

[45] The recent arrangement by which work in the mines can be chosen as an alternative to military service is mentioned elsewhere in this article.

[46] As stated by Mr. W. Gomulka in his speech before the central committee of the party. He also said: " Sunday work was introduced, which ruined the health and strength of the miners and made it difficult to maintain the equipment of the mines in proper condition." (*Trybuna Ludu*, 21 October 1956.)

[47] Statement by Mr. Zápotocký in *Rudé Právo*, 17 October 1956.

[48] See *Hornik*, No. 44, 1956. According to the same source, 2.07 million shifts (of which 335,000 " non-excused ") were lost through absenteeism in the first eight months of 1956. The loss in output arising from the " non-excused " absences was some 650,000 tons.

to both the fuel shortage and delays in the commissioning of generating capacity.

The difficulties in coal production in the main producing countries had serious effects on the fuel situation also in Hungary, the more so because the delays in deliveries of Czech and Polish coal and coke coincided with the decline in oil output due to the flooding of the Nagylengyel oilfields early in 1956. Even allowing for the planned increase in brown-coal production, the resulting deficit may be put at about 500,000 tons of hard-coal equivalent. On 1 October, total stocks equalled only 18 days' consumption, and these stocks were very unevenly distributed. The railways had fuel for only six days, and some industrial concerns for even less. Up to that date, practically no deliveries to households for the coming winter had taken place.

In order to meet the fuel crisis, additional imports of 100,000 tons of crude oil and 70,000 tons of coke from the Soviet Union and imports of various kinds of fuel from Yugoslavia and western Europe were hoped for. In addition, arrangements had been made for 100,000 tons of lignite to be imported from Bulgaria. This country, incidentally, seems to be the only one within the region (apart from the USSR) which is not faced with an acute shortage of fuel.

9. Employment and Wages in Eastern Europe and the Soviet Union

Shortages and Surpluses of Manpower

Although seasonal shortages of agricultural labour were more or less successfully overcome, the long-term problems of establishing the desirable proportions between the urban and rural populations came to the fore in a number of countries. Thus, in Poland administrative measures were taken to restrict the movement from rural to urban areas because " the excessive influx of the rural population into towns was found responsible for shortages of agricultural labour in some places as well as for difficulties in finding employment for town-dwellers ".[49] The new regulations, which run contrary to the current trends towards facilitating the mobility of labour, were criticized in the Polish Parliament on the grounds that an appropriate system of economic incentives rather than administrative decisions should govern the geographical distribution of labour.[50] In Czechoslovakia, the shortage of agricultural manpower is a continuing problem. During the first half of 1956 the gross intake of labour in agriculture amounted to 60,000 persons. This was three-quarters of the number planned for the whole year 1956.

Whereas this year's short-term problem of manpower for the harvesting season was largely met, the situation in mining, the other sector of labour deficit, continues to be very difficult. The Soviet Minister for the Coal Industry announced[51] that, although the recruiting drives met with the response of thousands of young patriots, permanent employment would not be ensured until adequate housing was available in the mining areas.[52] The plan for Czechoslovak coal output was not fulfilled in the first ten months of 1956, in spite of the help of brigade workers. It was reported that in the fourth quarter of 1956 13,000 more workers were still needed in the mines in spite of the fact that many of the brigade workers had undergone special training and had decided to remain in the mining industry for good.

In Poland, recruitment for work in the coalmines has been given a boost by making this an alternative to military service. Conscripts may now opt for 20 months' uninterrupted work in allotted mines. Their wages are to be the same as those of other miners and after the first three months they become eligible for certain privileges reserved for the miners, including retirement pensions. During the first three weeks of its operation, 1,762 men subscribed to the new scheme and the 1956 plan envisages a total of 9,000 before the end of the year. The importance of the new method of recruitment naturally cannot be assessed before it is seen how many of the recruits are willing to stay in the mines after the obligatory period of 20 months. For the time being, the arrangement increases the already excessive labour turnover, which, according to the Vice-Minister of Coal Mining, is higher now than at the beginning of the old Six-year Plan. Lack of stability of employment is made responsible for the lowering of productivity and is also held to endanger the safety of work.[53] To improve the long-term situation it appears to be essential to provide better accommodation

[49] The new decree of the Council of Ministers, effective from 20 September 1956, gives an absolute priority for new recruitment in socialized urban enterprises to permanent town dwellers with the exception of a few categories such as high administrative or managerial officials, teachers and medical workers. Persons looking for work who either live in rural areas or originate there and are not registered for permanent town residence should be persuaded to take up work on state farms, on MTS or in forestry or mining.

[50] *Trybuna Ludu*, 11 October 1956.

[51] An address on Miners' Day (25 August 1956).

[52] It appears that " not a single square metre of dwelling space had been built this year in the Ordzhonikidze or Makeevka coalfields ". Moscow Radio talk on 18 August 1956.

[53] Two serious catastrophes occurred in the Chorzow and Boze Dary mines in August, involving the loss of many lives.

for the miners during the Five-year Plan. The Ministry of Mining announced its intention to shift 100 million zlotys from the investment fund proper to housing. In Hungary, the drive for producing an extra 300,000 tons of coal in the second half of the year called for an immediate increase of 2,600 in the number of miners. About 40,000 coal miners (nearly half of the total) live outside mining colonies and have to use special bus services.

Apart from coal mining, where the problem of labour shortage is, after all, world-wide, and the largely seasonal difficulties in agriculture and building, the over-all manpower situation in eastern Europe, with the notable exception of eastern Germany and Czechoslovakia, shows signs of over-saturation rather than of insufficient supply. There may well have been similar instances of insufficient utilization of labour in previous years but the measures recently taken in Poland and Bulgaria suggest that this kind of employment problem has now become more widespread and important.

In addition to Poland and Hungary,[54] where the appearance of frictional unemployment of important dimensions was reported in the August issue of this *Bulletin*, there are also indications that the Bulgarian Government is faced with the same problem and that it has already taken a number of measures designed to create additional employment outlets such as the renewed efforts to step up production, the expansion of the staff of various state institutions, the replacing of prisoners by free workers in the mines, the release from urban enterprises of workers and employees who were formerly employed in agriculture and the introduction of shorter working hours in some enterprises and institutions.[55]

The main causes of these developments may be briefly summarized under four heads. Firstly, employment problems have tended to arise as a consequence of the measures recently taken to check the excessive growth of the bureaucratic machinery, by tightening up administration and management in order to improve their efficiency.[56]

Secondly, the quasi-unemployment among large numbers of women not hitherto employed exerts a pressure on the labour markets. Little is known about the age and marital status of women looking for jobs, but there are indications that the new and unsatisfied demands for work come chiefly from middle-aged married women who need to supplement the family income.[57] If it can be assumed that the demand for gainful employment among women is at least as great in Poland and Hungary as it is in Czechoslovakia and eastern Germany—a hypothesis which seems to be justified by the existing differentials in the respective standards of living—then the lower proportions of working women in the former two countries (see Table 20) may perhaps be taken as *prima facie* indication of difficulties encountered by the Polish and Hungarian women in joining the labour force.

Thirdly, intermittent unemployment occurs in some sectors of the economy, even in countries which suffer from chronic labour shortages, on account of the irregularity in the supply of raw materials and lack of co-ordination between enterprises. The resulting fluctuations in the rhythm of production blur in many cases the employment picture and create alternating surpluses and shortages. A clear example is provided by the building industry in eastern Germany, especially in rural construction, where the season never exceeds seven months, for reasons which have little to do with the weather. In Hungary too, there were frequent complaints about stoppages and short hours. This gave rise to trade union demands for some degree of control of the distribution of raw materials.

Finally, mention should be made of the specific situation of small towns, which were often left outside the main stream of industrial development in the eastern European countries. Deprived largely of small local industries and handicrafts catering directly for the satisfaction of local needs, and having to a large extent lost their role as trading centres for the surrounding countryside, such places served as reservoirs of surplus manpower during the recent past. The new policies of decentralization of economic development and of encouragement to artisans and small private enterprises are meant not only to improve the lot of that hitherto neglected sector of consumers, but also to provide productive employment for the redundant or under-employed town inhabitants[58] and to overcome the "crisis of small towns".[59]

Chiefly on account of demographic factors and the existence of unused industrial capacity, both Czechoslovakia and eastern Germany still are in a category of their own with regard to the manpower situation.

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[54] It may be significant in this context that employment in Hungarian industry exceeded the plan for the first nine months of the year and its share in the increase of output increased relatively to the productivity factor.

[55] *Izvestia na Prezidiuma na Narodnoto Sobranie*, 10 July 1956.

[56] The figure of 36,000 redundant administrative officials was mentioned by Mr. Secomski, the Vice-Chairman of the Polish State Planning Commission.

[57] See *Economic Bulletin for Europe*, vol. 8, No. 2, p. 33 ff.

[58] Mr. Secomski stated in the Polish Sejm that this year 100 million zlotys and next year 200 million zlotys will be spent for setting up a variety of small local enterprises, co-operative services and handicrafts to promote employment.

[59] See, for instance, "The problem of the stimulation of activity in small towns in Poland", *Nowe Drogi*, No. 7-8, 1956.

TABLE 20

Employment of women by branches of economy in the socialized sector [a]

Women as percentage of all employees

Branch of economy	Czechoslovakia Dec. 1955	Eastern Germany Average 1955	Hungary Average 1955	Poland Average 1954	USSR 1 Oct. 1955
Socialized sector [a]	*36.7*	*41.7*	*31.1* *	*32*	*45*
Industry	35.0	38.6	32.0	30	45
Agriculture	..	37.8	17.7	23	46 [b]
Building	9.8	8.4	13.5	13	31
Transport	15.0	20.6	17.5	15	33
Communications	44.5	55.5			
Trade	61.8	61.0	48.3	52	58
Health service	72.0	61.4 [c]	51.1 [d]	59 [e]	85
Education	62.2				68

Sources: Czechoslovakia: *Statisticky Obzor*, No. 6, 1956. Eastern Germany: *Statistische Praxis*, No. 7, 1956. Hungary: *Magyar Statisztikai Zsebkönyv*, 1956. Poland: *Rocznik Statystyczny*, 1955. USSR: *Narodnoe Khozaistvo SSSR*, 1956.

a The figures relate to the "socialized sector" in the case of Hungary and Poland (that is, broadly speaking, all workers and employees, except workers hired by collective farms) and to "all workers and employees" in the case of Czechoslovakia, eastern Germany and the Soviet Union.

b State farms and other state agricultural enterprises.

c "Non-material production".

d "Administration".

e Cultural and social institutions.

According to Mr. E. Erban, the Chairman of the State Social Security Office of Czechoslovakia, the national economy outside agriculture needs about a quarter of a million employees.[60] To remedy the situation somewhat, the regulations governing old-age pensions are being modified so as to give an incentive to continue work after pensionable age has been reached.[61] This measure, which is in line with policy trends in some western European countries where full employment prevails, is expected to raise considerably the number of employees above the age of 60. Some hopes are also attached to a further increase in the employment of women, who at the middle of 1956 made up about 37 per cent of all workers and employees, and to revisions in the criteria of unfitness for work. The diametrically opposite manpower situation in Poland is strikingly illustrated by another paragraph in the speech by Mr. Secomski quoted above, in which he stated that "in order to absorb the growing number of population entering active age, it will be necessary (during the Five-year Plan and later) to study the possibility of releasing from work the old and the less productive by revising the system of pensions, family allowances and working time". One way of keeping women off the labour market, discussed in the Polish Sejm, is to grant substantial allowances for housewives.

Changes in Wage Systems

In most countries of the region, the intention is to make a comprehensive overhaul of the entire wage systems.[62] The main features of this reform will be to increase the share of basic wages in total earnings,[63] to establish a more rational scale of differentials, to give more importance to the skill factor,[64] and, in general, to arrive at a more efficient system of incentives. Pending these more far-reaching changes, the rather piecemeal and patchy process of remedying the most obvious imperfections of the present wage

[60] See *Rudé Právo*, 3 October 1956.

[61] An incentive to stay at work after reaching the age of 60 (men) or 55 (women) is provided in the new law effective from 1 January 1957 by allowing the pensioners to draw one-third of their pensions in addition to the wage or salary they may receive, and by increasing the amount of pension due on retirement by 4 per cent for each year of employment between the ages 60 and 65 (men) and 55 and 60 (women).

[62] See also *Economic Bulletin for Europe*, Vol. 8, No. 1, pp. 28-31, and Vol. 8, No. 2, pp. 36-37.

[63] To quote but one recent example, according to a statement of Mr. Zápotocký, the norms were fulfilled on the average last June in precision engineering by 207.3 per cent, in heavy engineering by 217.7 per cent and in the motor-car industry by 215.2 per cent.

[64] According to a statement by Mr. Sándor Gáspár, Chairman of the Hungarian Trade Union Council, the highly skilled turret lathe operators in the Ganz wagon works earn on the average 1,115 forints per month on the basis of technical norms, whereas in the same workshops a semi-skilled welder can earn 1,700 to 1,800 forints after three months' training, because, on the basis of an empirical norm, he can reach a performance as high as 180 to 200 per cent.

structure has continued during recent months. In addition to the efforts to rationalize the system of wages with a view to its incentive effect, the problem of relative wages is also being approached from the point of view of social policy, especially by the introduction of minimum wages.

Following the announcement made at the twentieth party congress, in February 1956, the Government of the Soviet Union is to introduce, beginning 1 January 1957, a minimum monthly wage of 300 to 350 roubles for industrial workers (including building, transport and communications).[65] Whereas the remuneration of apprentices remains unchanged, that of watchmen and young workers is being fixed at the minimum level of 300 roubles in urban areas and 270 roubles in rural areas. The expected aggregate increase in annual wage payments amounts to about 8 billion roubles and represents a net addition of slightly less than 2 per cent to the national wage bill. The decree states that the workers affected would on the average have their wages increased by about one-third, and it can be roughly estimated that the number of workers benefiting from the new measure will be in the region of 8 to 9 million—i.e., no less than one-sixth of the non-agricultural labour force. The situation of the lowest-paid group was further strengthened by raising the tax-free limit of personal incomes from 260 to 370 roubles per month.[66] These measures, in conjunction with the previously announced improvements in pension schemes, represent a very considerable advancement in the social legislation of the Soviet Union. In Rumania a minimum wage of 350 to 400 lei per month (depending on the branch of the economy) was introduced beginning 1 November, with simultaneous upward adjustments of old-age, disability and war pensions in line with similar policies adopted in 1956 in other countries of the region.

A rather novel device of manipulating income tax exemptions for differentiation of incomes for economic or social motives is gaining ground. In Poland, for instance, the income tax of manual workers including specifically the "leading workers" (shock-workers) in industry, building and construction, has been reduced by one-third effective retroactively from 1 August 1956. The significance of this step is twofold: firstly, it settles by a compromise solution the disputed question, which loomed large among the demands of workers in the ZISPO workshops in Poznan,[67] whether "leading workers" were or were not eligible for tax exemptions, and secondly, it removes an unpopular privilege by granting the same relief to other workers. A first move was also made to alleviate the economic plight of large families by tax concessions.[68] Further gradual reliefs on the same lines were promised. Substantial family allowances of 100 lei per child per month were introduced in Rumania for families earning less than 1200 lei monthly. For families with higher income the allowance starts with the second, third or fourth child, depending on the level of income.

In eastern Germany, the geographical differentiation of wage rates based on pre-war conditions was found largely unjustified, given the uniform retail prices and the small incidence of rent on the cost of living. Consequently, the existing five categories were reduced to three. The levelling-up of the two zones hitherto discriminated against was chiefly responsible for the over-all increase of the wage bill by some 3 per cent.

The introduction of minimum wages, improvements in pensions, tax reliefs and other measures to improve living standards undertaken by the eastern European governments during 1956 were sometimes resorted to in response to workers' demands rather than as the logical sequence to increased productivity. In Poland, for instance, the original targets of 5,000 million zlotys of additional expenditure on wages and of 300 million on pensions were subsequently raised twice in the course of the year to reach the high figures of 9,300 and 890 million zlotys, respectively (on a yearly basis). In these circumstances, overdrawn wage funds became frequent[69] and while the full weight of increased purchasing power will be felt only next year, signs of inflationary pressure are already visible. In his speech to the Central Committee, Mr. Gomulka stated that ". . . the cord is now strained to breaking-point.

[65] The introduction earlier in the year of minimum wages in Hungary and Poland was commented upon in this *Bulletin*, Vol. 8, Nos. 1 and 2.

[66] The tax assessment for the 260-400-rouble income bracket was until now only 18 roubles, but most of the persons in this category were subjected to the "bachelors and childless couples" tax amounting to 6 per cent of their income.

[67] See *Economic Bulletin for Europe*, Vol. 8, No. 2, p. 37.

[68] The tax was abolished altogether for families with more than five children (if both parents are working) or more than four children (if only the father works) or more than three children (if only the mother works).

[69] In Czechoslovakia, for instance, wage funds were overdrawn in July and August in some enterprises of the Ministries of Metallurgy, Heavy Engineering, Automobile Industry and Agricultural Machinery, Food Industry, Transport, Construction and Local Economy—as well as in the enterprises of the Central Association of Producer Co-operatives. In July, the plan for productivity of labour in industry was fulfilled to 102.5 per cent, but the index of average wages showed an increase of 3.9 per cent over the plan. According to preliminary indications, this unsatisfactory development continued in August and September (*Rudé Právo*, 15 September and 7 October 1956).

Any further wage increase must be closely linked to the expansion of production and lowering of costs." Similarly, the Prime Minister of Czechoslovakia, Mr. V. Široký, warned recently that " we must make sure that in future the correct and planned relationship between the rise of wages and of labour productivity is maintained everywhere. If not, the Czechoslovak crown would lose value."

10. Foreign Trade and Payments in Eastern Europe

The plans for foreign trade in 1956, established at the beginning of the year, foresaw considerable increases in total turnover, ranging from 6 per cent in Hungary (due exclusively to a planned expansion of exports) and 15 per cent in eastern Germany to no less than 25 per cent in Bulgaria.

The data for actual trade, in current prices, in the first half of 1956 (see Table 21) show, on the whole, a considerable increase, even in Poland where foreign trade had been planned to remain at about the 1955 level. A particular effort was made to develop trade in Czechoslovakia, and turnover increased by as much as 20 per cent compared with a year earlier. This increase is remarkable in itself, though Czechoslovakia's foreign trade has hitherto been extraordinarily low in relation to its high degree of industrial development.

The relatively favourable developments in the first half of 1956 may be attributed in part to more systematic efforts to promote the production of export industries by giving them a high priority in the allocation of scarce raw materials and in other ways.

Table 21

Indices of foreign trade of eastern European countries [a]

Actual trade in the same period of preceding year = 100

	1955 Actual	1956 Plan	1956 First half Actual
Bulgaria			
Exports	98.4	131	..
Imports	99.4	119	..
Turnover	98.9	125	114
Czechoslovakia			
Exports	117	..	121
Imports	113	..	118
Turnover	115	..	120
Hungary			
Exports	116	112	..
Imports	104	100	..
Turnover	110	106	..
Eastern Germany			
Exports	97	..	..
Imports	105	..	..
Turnover	101	115	112 [b]
Poland			
Exports	106	..	111
Imports	103	..	96
Turnover	104	..	103

Sources : Direct communications from the governments; *Vneshna Trgovia*, September 1956: special edition for the Plovdiv Fair; *Rabotnichesko Delo*, 3 September 1956; *Rudé Právo*, 13 September 1956; *Statistické Zprávy*, No. 1, 1956, Table 12; *Körgerdasági Szemle*, No. 1, 1956, p. 2; *Szabad Nép*, 11 February 1956; Plans and Plan Fulfilment Reports.

[a] The indices are believed to be based on trade values in current prices. Nothing is known about recent price movements.

[b] Estimate based on figures for each of the first three quarters (106, 112 and 119.3, respectively).

Table 22

Recent trends in the regional distribution of foreign trade of eastern European countries

	Bulgaria	Czecho-slovakia	Hungary	Eastern Germany	Poland
Regional distribution of trade (percentages of total)					
Trade with eastern trading region:					
1955 Actual	87	70	60	72	63
1956 Plan	..	..	62 *	..	59
1956 First half—actual	80 [a]	..	..	68	59
Trade with the Soviet Union only					
1955 Actual	46	33	22	38	32
1956 Plan	..	35	..	..	..
1956 First half—actual	..	..	..	..	27
Percentage increase from first half 1955 to first half 1956 in trade with					
Eastern trading region	6 [a]	..	..	3	−4
Western trading region	76 [a]	..	..	24	39
of which Western Europe	59	26	20 [b]	..	28 [c]

Sources : Direct communications from Governments; *Statistické Zprávy*, No. 1, 1956, *Rudé Právo*, 13 September 1956; *Magyar Statisztikai Zsebkony*, No. 1, 1956; *Körgardasági, Szemle*, No. 1, 1956, p. 2, 8; *Neues Deutschland*, 2 September 1956; *Zycie Gospodarcze*, No. 20, 1954; *Trybuna Ludu*, 30 October 1956, and Plan Fulfilment Reports.

[a] First quarter.

[b] First 8 months of 1956 at annual rate compared with whole year 1955.

[c] January-July 1956.

Improvements in foreign trade administration and a more intensive search for markets have also played a role. Furthermore, the good harvest of 1955 helped to raise the volume of foreign trade: for those of the countries which depend largely on exports of food and agricultural raw materials, the favourable harvest meant higher export availabilities and thereby an increased capacity to import. For those of the countries which are normally large food importers, the good harvest may not have contributed to increase total trade turnover, but it must at least have improved the possibilities of importing other scarce raw materials.

It is clear that the second half of the year cannot show an equally high degree of plan fulfilment in foreign trade. Export availabilities have been reduced by bad harvests in Bulgaria and probably Rumania, by the shortfalls, coupled with a rise in home demand, in Polish coal production, and, even before the recent events, by reduced export availabilities of mineral oil in Hungary. More recently, the insurrection must have had disastrous effects on production and the normal flow of trade. In some of the countries, among them eastern Germany, these adverse factors may be partly offset by an increase in Soviet orders for industrial products and by deliveries under recently granted Soviet loans.

As far as can be judged from the figures in Table 22, the regional distribution of the foreign trade of eastern European countries has continued, as in 1954 and 1955, to change in the direction of a smaller share falling on trade with countries of the eastern trading region. Thus, the share of the western trading region in Poland's foreign trade, which was already relatively high, increased further from 37 per cent in the first half of 1955 to 41 per cent in the first half of 1956. In Bulgaria, that share increased from 13 per cent in the first quarter of 1955 to 20 per cent in the first quarter of 1956. In absolute terms, the trade of eastern European countries among themselves and with other countries of centrally planned economy seems to have increased, if at all, by only a few per cent while their trade with the western trading region has increased by as much as 24, 39 and 76 per cent in eastern Germany,

TABLE 23

Trade surpluses and deficits (—) of eastern European countries by areas

Millions of dollars

	1952	1954	1955	1956 First half	1955–surplus or deficit as a percentage of total imports 1955
Bulgaria					
Total	13	37	34	−2 [a]	17
With the eastern trading region	12	30	36	4 [a]	18
With the Soviet Union only	8	12	18	..	9
Eastern Germany					
Total	−15 [b]	184	105	..	9
With the eastern trading region	13 [b]	194	112	..	10
With the Soviet Union only	−25 [b]	130	94	..	8
Hungary					
Total	—	12	75	24 [c]	14
With the eastern trading region	4	38	111	128 [d]	21
With the Soviet Union only	30	26	54	..	10
Poland					
Total	..	−35	−12	32 [e]	−1
With the eastern trading region	..	−43	−35	41 [e]	−4
With the Soviet Union only	..	−8	−33	37 [e]	−4

Sources: Direct communications from governments and *Byulleten Inostrannoy Kommercheskoy Informatsii*, Moscow, 4 October 1956.

[a] First quarter.

[b] 1953.

[c] First eight months.

[d] Plan for the whole of 1956.

[e] First seven months.

TABLE 24

Recent credit arrangements in eastern Europe

Date	Debtor	Creditor	Amount of loan *(Millions of roubles)*		Period of repayment	Specified purpose	Other facilities
			Total	of which in free currency			
February 1956	Bulgaria	Soviet Union	370	None	10 years	Purchase of Soviet agricultural machinery and equipment for 2 fertilizer plants	
Not known	Bulgaria	Eastern Germany	Not known	None	Not known	Building of textile factories	
July 1956	Eastern Germany	Soviet Union	Not known	None	Not known		Reduction of east German share in occupation costs from 1.6 to 0.8 billion DM. Increase in prices paid for uranium.
September 1956	Poland	Soviet Union	100	An unspecified part	1957–60	Purchase in Soviet Union of copper, rubber, fats	(1) 4–5 years' postponement of repayment of 810 million roubles of older debts. (2) Repayment of loans contracted in 1947 to 1949 to be made in commodities instead of free currency.
October 1956	Hungary	Soviet Union	100	40	1960–65	Purchase from Soviet Union of fuels and raw materials—e.g., coke, lead, cotton, and artificial fibres	
November 1956	Poland	Soviet Union	400	None	1961-62	Purchase of 1.4 million tons of Soviet grain in 1957	All of Poland's debts to the Soviet Union (2,100 million roubles) are cancelled. (Considered as paid by past Polish deliveries of coal.)
			700 (available in 1958-60)	None	1963-65	Purchases in the Soviet Union	Agreement in principle on supplementary fees to be paid for commercial transit through Polish territory.

Sources: *Rabotnichesko Delo*, 4 February 1956, *Bulgaria To-day*, No. 14, 1956, *Szabad Nép*, 5 October 1956; and press reports.

Poland and Bulgaria, respectively. Particularly great efforts were made to develop trade with overseas countries. In some cases this effort was supported by the granting of credits for deliveries of complete factories, rolling stock and other manufactured goods. Most of these credits seem to have been on short or medium term, but long-term loans have been given by the Soviet Union to India (for the construction of a steel mill) and Afghanistan; a long-term loan to Indonesia was discussed during President Soekarno's visit to the Soviet Union in September.

It is probable, though no precise information is available, that the virtual stagnation in eastern European countries' trade with the eastern trading region is to be accounted for mainly by an absolute decline in their trade with the Soviet Union. It seems that some eastern European countries have had difficulties in financing imports from that country sometimes because of scarcities of supplies of the commodities usually exported to the Soviet Union, and in other cases—as appeared in recent negotiations with eastern Germany and Poland—because of a lack of

Soviet import demand for the commodities the eastern European countries could offer. It seems, for instance, that the commissioning of new textile mills in the Soviet Union has diminished the scope for textile exports from eastern European countries, notably Poland, to the Soviet Union.

These difficulties for eastern European exports to the Soviet Union were all the more serious because credits previously granted by the Soviet Union were generally being exhausted, and repayment started, so that, at given import and export prices, an increasing volume of exports to the Soviet Union would have been necessary in order merely to keep the volume of imports from that country at its previous level.

The figures for trade balances shown in Table 23 may serve to throw some more light on this problem. Of the four countries for which information is available, Poland is the only one which has not in recent years had to carry the burden of a rather considerable export surplus on account of commodity trade. In 1956, however, the Polish trade balance also shows an export surplus. It is further seen that a very considerable part of the export surplus is incurred in trade with the Soviet Union. The size of the real burden involved in these export surpluses depends, of course, on the prices applied in trade among the countries of the eastern trading area. On this, however, no precise information is available.[70]

In the complete absence of balance-of-payments data, any attempt to explain these export surpluses must remain conjectural. Payments for services such as transport and technical assistance by Soviet experts are believed to be of minor importance, with the exception of Poland, whose positive balance arising from transit traffic may go a long way to explain the deficit in commodity trade in 1954 and 1955.[71] It seems probable, therefore, that the surpluses in commodity trade with the Soviet Union are to be explained largely by repayment of medium-term credits contracted some years ago, and, in the case of Hungary, Bulgaria and Rumania, by the payment for former Soviet shares in joint companies.

The strain which thus arose in the payments position of many eastern European countries, especially *vis-à-vis* the Soviet Union, was reflected in frequent Government statements to the effect that the new long-term plans could be successfully carried out only on the assumption that additional external resources would become available. Eventually, a series of new long-term loans were negotiated with the Soviet Union (specified in Table 24), and it may be expected that in the near future, as these credits are drawn upon, the trade surpluses of eastern European countries will diminish or even turn into deficits. By the same token, the share of the Soviet Union in the total trade of the eastern European countries may be expected again to increase.

[70] The regular and full publication of trade agreements has recently been requested in Poland and Hungary.

[71] It was announced by the Polish Minister of Foreign Trade that receipts for the transport of east German goods amounted to about $25 million annually.

STRUCTURAL ADAPTATION IN EASTERN AND WESTERN GERMANY

The operative post-war agreements between the Allies contained no explicit reference to an economic division of the western and eastern occupation zones. On the contrary, administrative machinery was set up to ensure some uniformity in economic development, a common currency was envisaged and zonal boundaries were defined as administrative divisions and not as political or economic frontiers.

Substantial differences in economic policies were doubtless inherent in the situation, however, and in the atmosphere of the cold war the administrative division developed very soon into a sharp economic cleavage. The economic policies initiated or permitted by the occupation Powers contributed to the economic cleavage in two main ways: by establishing different social-economic systems in the two parts, which in turn channelled trade into new orbits, and by the contributions they demanded of or gave to the administered territories. In eastern Germany internal measures included an early currency reform (followed by a second reform in 1948), a far-reaching land reform, nationalization of large and medium-scale industry and central planning of output, consumption and investment. Dismantling of productive capacity, substantial reparations out of current production and occupation costs were external burdens placed upon the economy. In western Germany a late currency reform, the handing back of property under trusteeship to private owners and the re-establishing of a private market economy were the main lines of internal policy. From the outside, occupation costs were imposed and some dismantling for purposes of reparations to other countries took place in the early years, but a large programme of aid to western Germany was then developed under the Marshall Plan. In fact, the two parts of Germany soon became more sharply separated economically than any of the Succession States to the former Austro-Hungarian monarchy after the 1914 War.

It is not intended to give here an account of the trials and errors of the years immediately after the war, for which the statistical data are scanty and deficient. The purpose of the study is to examine the extent and directions of adaptations made in the two parts of Germany in the last six or eight years, that is after the political and economic machinery started to work sufficiently well to discern more lasting economic changes. The adjustments were largely achieved by the mid-1950s, more so in western than in eastern Germany, and the new structure that emerges can be set against the structure of the two areas as it had been when they were part of the same economy. A good deal of work has been done by German scholars to show, on the basis of the 1936 census, the detailed economic characteristics of the two regions before the war; these are fortunately not in dispute, and the year 1936 can therefore serve as a convenient statistical basis of comparison with the industrial pattern of the 1950s. But it does not, of course, present the state of economic affairs when the division of Germany became operative. Labour force and productive capacity changed between 1936 and 1939 under the impact of rearmament. The early war years led to further shifts in industrial production, while the final stages of the war destroyed capacity through bombing and land fighting. Then followed a period of large-scale population shifts and of dismantling. Thus, by the end of 1946 the pattern of industry and population was significantly different from that of 1936.

It may be questioned whether, in view of all these intervening changes, a comparison of pre- and post-war data can serve any useful purpose. The procedure does make sense, if it can be assumed, first, that some of the basic features of the economy and some of the factor endowments could not be changed at will in the short space of a decade and, secondly, that forces of tradition and past experiences would tend to re-establish to some extent the pattern that prevailed before the war, and that significant deviations from this pattern are characteristic of the adjustments made to the division of the economy and to the reintegration of the parts into a changed world.

A comparison of the changes in the level and structure of economic activity in eastern and western Germany is thus subject to many qualifications, and it may be as well to state explicitly that it is not the purpose of this inquiry to assess the relative efficiency of the two economic systems, the one a private enterprise market economy, the other a centrally planned economy. If it is at all possible to answer such a complex question, it would seem premature to attempt it now, as the information about the working

of the east German economy is far from adequate for such an evaluation. All that is intended is to describe the way in which the divided parts have adjusted themselves to the new situation and the extent to which they have become viable units with their own chances of growth. Attention will be focused on changes in the level and composition of output; a study of the welfare aspects would require quite different sources of material, which cannot be assembled for the two parts in a comparable and reliable form, and will therefore not be attempted here.

The first section of the article describes the changes in the size and distribution of the total population and of the employed population. This will be followed by an examination of changes in the national income and its components and filled in by an analysis of the developments within particular sectors of the economy. Finally, the external economic relations of the two areas with the rest of the world and with each other, and the way in which trade has helped or hindered the adjustment process, will be considered.

1. Population and Manpower before and after the War

Between 1939 and 1955 the population of western Germany grew by about 25 per cent and that of eastern Germany by about 7 per cent. The east German population had already passed its peak in 1949, while that of western Germany has continued to increase.

Total Population
Millions

	Western Germany		*Eastern Germany*
	a	*b*	
1939	39.3	42.1	16.7
1949	46.8	48.9	19.1
1955	50.0	52.2	17.9

a Excluding West Berlin.
b Including West Berlin.

The greater increase in the west is largely explained by the heavier flow of migration towards the end of the war, the inflow from former German and German-settled territories after the war and net movements from eastern to western Germany.

The pre-war age and sex distributions of the population of the two parts were very similar (Table 1). The population of working age (15 to 65) represented just over seven-tenths of the total in both territories, but the proportion of the age groups below 15 was slightly higher, and that of the aged slightly lower, in the west than in the east. The ratio of males to females in the total was about the same in both areas.

Soon after the end of the war, in 1946, the position looked very different. The proportion of people of working age was lower and the ratio of males to females in this age group was more unfavourable, since, apart from war losses, many men were still held prisoners of war. Even in 1950, when most of the prisoners had returned, the share of the age group 15 to 65 was still lower than before the war and the relative excess of the number of women over men had grown considerably. The relative increase from 1939 to 1950 in the number of women aged 15 to 65 was about one-fifth in western Germany and one-sixth in eastern Germany; but while in western Germany the number of men in this age group increased by about 8 per cent, eastern Germany registered a decline of 10 per cent. Four years later the number of men in the active age group increased in western Germany by another 7 per cent and the number of females by about 5 per cent. In eastern Germany, where end-of-1955 data are available, the number of men remained unchanged, while the number of women decreased by about 5 per cent. The labour supply has therefore been tighter in the east and abundant in western Germany. Larger entries into the labour market, provided they find employment, do not only help in the general expansion of the economy, but also introduce an element of mobility and flexibility which facilitate adjustments that have to be made in a transitional period.

The gainfully occupied (i.e., " active ") population is in all countries only a part of the population of working age. It is variable within certain limits in response to economic or institutional pressures. The active population as a proportion of the population of working age is shown for 1939, 1950 and 1955 in the table below.

Share of Active Population in Population of Working Age and Total Population

	1939		*1950*		*1955*	
	A	B	A	B	A	B
Eastern Germany	72.6	50.9	69.4	46.2	71.5	46.2
Western Germany	72.4	50.2	68.1	45.9	71.5	48.8

A: As percentage of population of working age (15 to 65 years).
B: As percentage of total population.

The proportion of the active population to the total population of working age, which was rather more than seven-tenths before the war, was slightly less in 1950 in eastern as well as western Germany, although the

TABLE 1

Population by sex and broad age groups, 1939 and post-war years

Thousands and percentages

Age group	Eastern Germany [a]						Western Germany [b]					
	Male		Female		Total		Male		Female		Total	
	Thousands	Percentage	Thousands	Percentage	Thousands	Percentage	Thousands	Percentage	Thousands	Percentage	Thousands	Percentage
	17 May 1939						*17 May 1939*					
Below 15 . . .	1 815	22.1	1 747	20.4	3 562	21.3	4 965	24.1	4 791	22.3	9 755	23.2
15 to 65 . . .	5 715	69.9	6 030	70.4	11 745	70.1	14 152	68.8	15 056	70.0	29 209	69.4
Above 65 . . .	650	8.0	788	9.2	1 438	8.6	1 463	7.1	1 662	7.7	3 124	7.4
TOTAL . . .	8 180	100	8 565	100	16 745	100	20 580	100	21 509	100	42 088	100
	31 August 1950						*13 September 1950*					
Below 15 . . .	2 143	26.3	2 059	20.1	4 202	22.9	5 932	25.5	5 687	21.4	11 619	23.3
15 to 65 . . .	5 185	63.5	7 058	69.0	12 243	66.6	15 236	65.5	18 299	68.8	33 535	67.3
Above 65 . . .	833	10.2	1 110	10.9	1 943	10.5	2 094	9.0	2 595	9.8	4 689	9.4
TOTAL . . .	8 161	100	10 227	100	18 388	100	23 262	100	26 581	100	49 843	100
	31 December 1955						*31 December 1954*					
Below 15 . . .	1 898	23.8	1 821	18.5	3 719	20.9	5 724	23.5	5 466	19.8	11 191	21.5
15 to 65 . . .	5 153	64.7	6 740	68.3	11 893	66.7	16 354	67.2	19 177	69.4	35 531	68.4
Above 65 . . .	918	11.5	1 302	13.2	2 220	12.4	2 259	9.3	2 975	10.8	5 234	10.1
TOTAL . . .	7 969	100	9 863	100	17 832	100	24 337	100	27 618	100	51 956	100

Sources: See Appendix for "Sources and methods". [a] Including East Berlin. [b] Including West Berlin.

proportion of women in employment is probably considerably higher in eastern than in western Germany.

It will be noted from Table 2 that the active population in eastern Germany was about the same in 1950 and 1955 as in 1939, while that of western Germany was higher by about 8 per cent in 1950 and by almost 20 per cent in 1955. The absolute and relative distribution of these gainfully occupied people among the major sectors of the economy gives the first clue to some of the economic changes that have occurred during the period. The developments in the two areas have been significantly different. Before the war, agricultural employment [1] was about a fifth of total employment in eastern Germany and about a quarter in western Germany, while corresponding shares for industry were 49 and 42 per cent. In this sense eastern Germany appeared to be the more highly industrialized part. Extrapolating the 1950 figures for western Germany to 1955, it would seem that the two parts have become more equal, with just over a quarter of the active population in agriculture and just over 45 per cent in industry, while all services account for about one-third. In western Germany the share of agriculture in the active population declined, while that of industry rose; in the service sectors the changes were relatively small. In eastern Germany, by the end of 1950, the share of agriculture in total employment had increased and that of industry had decreased. By 1955 the labour force in agriculture had fallen back again and was about the same as before the war, while that in industry increased but was still below the pre-war level.

The similarity of the employment pattern for broad industrial groups in 1939 and 1955 in eastern Germany conceals, however, important social re-groupings of manpower within these sectors. Two of them deserve mentioning at this stage. First of all, there was a shift from small-scale activities to large-scale enterprise and, secondly, a change-over from self-employed

[1] Including, of course, family helpers not necessarily working full-time.

TABLE 2

Active population by sectors

Millions and percentages

EASTERN GERMANY [a]

	17 May 1939		31 December 1950			31 December 1955		
	Millions	Percentage	Millions		Percentage	Millions		Percentage
	A		A	B		A	B	
Agriculture and forestry	1.71	20.1	..	1.95	25.9	..	1.77	21.5
Industry, building and handicraft	4.14	48.5	..	3.30 [b]	43.8	..	3.83 [b]	46.5
Transport and trade	1.52	17.8	..	1.13 [c]	15.0	..	1.46 [c]	17.7
Services	1.16	13.6	..	1.15 [c]	15.3	..	1.17 [c]	14.2
TOTAL	8.53	100	8.5 [d]	7.53	100	8.5 [d]	8.23	100

WESTERN GERMANY [e]

	17 May 1939		13 September 1950		1955 Yearly average	
	Millions	Percentage	Millions	Percentage	Millions	Percentage
Agriculture and forestry	5.32	25.2	5.13	22.5	4.78 [f]	18.8
Industry, building and handicraft	8.80	41.6	10.16	44.5	..	..
Commerce, banking, insurance and transport	3.37	15.9	3.64	15.9	..	..
Public service and private services	3.66	17.3	3.93	17.1	..	..
TOTAL	21.15	100	22.86	100	25.37 *	100

Sources : See "Sources and methods".

A = Total labour force, including those temporarily unemployed. B = Only persons actually in employment.

[a] Including East Berlin.

[b] Not including uranium mining and some other industrial enterprises under Soviet military management.

[c] Not including persons employed by occupation forces.

[d] Including unemployment and people not covered by statistics (see footnotes *b* and *c*).

[e] Including West Berlin and unemployed.

[f] 1954.

and family helpers to wage earners. Table 3 illustrates this change-over. The data do not cover East Berlin (except in 1955), but that does not affect the validity of the conclusion that the percentage share of self-employed and family helpers in agriculture, and still more in other sectors of the economy, was significantly lower in eastern Germany in 1955 than it was in 1939. The re-groupings in agriculture reflect two opposing tendencies. The land reform, by establishing a great number of small holdings, favoured the growth in the number of self-employed and family helpers, and so did the discriminatory policy against middle-sized farms. On the other hand, the establishment of tractor stations and large socialist farming units called for relatively more wage earners. Finally, there is the question of the members of collective farms who could be classified by social status either as self-employed or as wage-earners. The bracketed figures in Table 3 show the result if they are counted as wage earners.

The relative decline of small-scale operators and their absorption into larger units in eastern Germany since 1950 can be seen for part of industry from the following table:

Number of Enterprises in Eastern Germany

Thousands

	1939	*1950*	*1955*
Number of enterprises in agriculture and forestry [a]	600	888	803 [b]
Number of enterprises in industry, handicrafts and building	530	..	274
Number of enterprises in industry [c]	..	24	20

Sources : Statistisches Handbuch von Deutschland, 1928–1944; *Statistisches Jahrbuch* [E.G.], 1955.

[a] With more than 0.5 hectares of land.

[b] Not including private plots of collective farmers.

[c] With more than 10 employees; excluding building.

TABLE 3

Share of self-employed and family helfers in total active population in main sector of activity

Self-employed and family helpers as percentage of total active population in:	Eastern Germany [a]			Western Germany [b]		
	May 1939	End 1950	End 1955	May 1939	September 1950	Yearly average 1955
Agriculture and forestry	63.7	69.5	68.7 [c] (58.1)	83.1	77.9	..
Industry, building and handicraft	10.7	11.9	8.1	12.0	11.2	..
Transport, trade and services	20.4	15.6	9.2	18.7	19.0	..
Total active population	25.3	28.0	21.5 [c] (19.2)	33.3	29.2	25.5
Active population outside agriculture	14.4	13.4	8.6	14.9	14.5	..
Absolute numbers of self-employed and family helpers (thousands)	1 944	2 108	1 769	6 554	6 443	6 246

Sources: Western Germany: 1939 and 1950: *Die berufliche und soziale Gliederung der Bevölkerung der Bundesrepublik Deutschland*, Teil I, Heft 3, Statistisches Bundesamt; 1955: *Statistisches Jahrbuch* [W.G.], 1956. Eastern Germany: 1939: *Statistische Praxis*, No. 12, 1948; 1950 and 1955: *Statistisches Jahrbuch* [E.G.], 1955.

[a] In 1939 without East Berlin and including unemployed; post-war with East Berlin and excluding unemployed.

[b] Without West Berlin and including unemployed.

[c] Including members of collective farms; the figures in parentheses exclude them.

Before the war, the total gainfully occupied population of western Germany was about two and a half times as large as that of eastern Germany. In 1955 it was almost three times as large in total, and this ratio also holds more or less true for the different sectors. In fact, whether it is a question of sex and age ratio, or of the percentage of active males in the total population, or of population growth, eastern Germany has been at a comparative disadvantage. The share of the gainfully employed population in total population, in spite of strong employment drives, is still lower in the east than in the west and it is well known that distributional changes are more difficult with a stationary than with a growing population. The very large western German labour reserves of the post-war period had by 1955 been largely absorbed into productive employment, and for the future western Germany will probably depend much more than in the past on natural population changes and migration.

2. The Changing Level and Composition of the National Product

It would be interesting and revealing to set the manpower data against the figures for the national product and its composition and thus to get a picture of the over-all development of the two economies and a framework for the analysis of the changes which have taken place within individual sectors. The construction of such a reference frame on a comparable basis is, however, beset with difficulties for a variety of reasons:

(1) The pre-war (1936) division of the national product between the two regions is imperfectly known, and the link between 1936 and the post-war period is particularly tenuous for eastern Germany.

(2) The east German concept of national income is narrower in coverage than the west German one, as it excludes the output of so-called unproductive labour. Some allowance can be made for this by adjusting the west German figure in a very rough and ready manner to the east German coverage.

(3) National product for western Germany is given at market prices as well as at factor cost, and both in current and in constant values. For eastern Germany it is given only at constant (1950) " realized prices ", which include subsidies and indirect taxes. Realized prices have an affinity to market prices, but, as the function of subsidies (partly given for the benefit of other countries) and of indirect taxes (partly used for expanding and channelling of capital formation) is different from the function they have in western Germany, it must remain questionable how far

TABLE 4

Index numbers of net domestic product at constant prices

	1936	1949	1950	1951	1952	1953	1954	1955
Eastern Germany								
(A) At factor cost [a]	100 [b]	69 * [b]	82 * [b]	(98)	(106)	(111)	(124)	(133)
(B) At realized 1950 prices [c]	..	..	100	119	129	135	151	162
Western Germany [d]								
At factor cost (1936 prices)								
Eastern coverage	100	95	112	128	135	147	160	180
Western coverage	100	102	117	130	138	148	161	178
At 1936 market prices, eastern coverage	..	..	100	117	124	135	147	164

Sources: See "Sources and methods".

[a] The figures in parentheses are obtained by applying the index numbers under eastern Germany B to the 1950 estimate given under A.

[b] Without East Berlin.

[c] Including East Berlin.

[d] Without West Berlin.

market prices in the one territory and realized prices in the other are truly comparable.

(4) The sector distribution of national product in western and eastern Germany is given in terms of net output, after allowances for capital consumption. As the estimates of capital consumption are likely to have been made by different methods, and as the depreciation allowances by sectors are not given separately either in the east or in the west, the adjustments necessary to achieve comparability cannot be made.

The lack of comparability is most troublesome for comparisons over time. In many cases only the direction of change and the order of magnitude can be indicated. The reader should bear in mind that the estimates contain error margins and should not be used without reference to the text and to the qualifying and notes in the tables Appendix.

The west German official data on national income (western coverage) at factor cost and at 1936 prices are given in Table 4. Apart from the official data,[2] the table contains estimates of the national income series adjusted—in an admittedly rough manner—to the narrower eastern coverage. For eastern Germany no official estimate exists of the national income at factor cost for 1936 or for any post-war year. It is therefore necessary to use the estimates given by the ECE secretariat in an earlier publication [3] which establish a link between the pre-war and post-war periods up to 1949. They are available at current and constant factor cost and at market prices. Although they are based on the western coverage of income, they can be adjusted to the eastern coverage. Starting with 1950, official data exist for the national income at constant "realized" prices. The gap in continuity between 1949 and 1950 is formidable and can be bridged only by making very bold assumptions. In estimating national income for 1949 at constant 1950 market prices it is assumed that 1950 factor costs and the level and incidence of indirect taxes were nearly the same as those for 1949. If, in fact, they were higher in 1950 than in 1949, as is not unlikely, the results under-estimate the 1949 level of income and hence over-estimate the rise in income between 1949 and 1950.

It is assumed further that, in spite of price distortions, the level of producers' prices in eastern Germany was still very similar to that of western Germany in 1949. This assumption gives an estimate of the 1949 income at 1936 factor costs. Finally, the assumption is made that the percentage changes between 1949 and 1955 of income at constant market prices represent equal proportionate changes in income at constant factor cost. There is no way of checking on the reasonableness of this assumption, as the total and the allocation of indirect taxes are not revealed by the eastern German authorities. As the procedure followed is obviously precarious, the interpretation must be correspondingly cautious and needs, if possible, supporting evidence.

Only three statements will be ventured on the basis of these figures for eastern Germany:

(*a*) National income at 1936 factor costs was considerably below the 1936 level in 1949 and regained it only in about 1951.

[2] The volume series are now being put on a 1950 basis, and this, it appears, may entail considerable revisions in the constituent items.

[3] See Appendix for sources and methods.

(*b*) By 1955 the east German product at factor cost exceeded that of 1936 by about a third.

(*c*) The rate of growth was particularly rapid —about 20 per cent per year—in 1950 and 1951, but slowed down to less than 10 per cent in subsequent years.

The following evidence would seem to lend support to these conclusions.

(i) According to east German sources, real wages of industrial workers in 1950 were only about 50 per cent of 1936 wages.[4] Even after allowing for a higher rate of accumulation and for the incidence of the burden of reparations, this would not suggest a real net product greater than that of 1936. Real wages were estimated to be 22 per cent above the 1936 level in 1955, when reparations had ceased, and this is not out of line with the real net product being, say, 30 to 35 per cent above the pre-war level.

(ii) In considering the growth rate of 20 per cent per year in 1950 and 1951 it must be remembered that 1950 was the first year of the five-year plan, which produced new forms of statistical presentation and estimation, and that the link between 1949 and 1950 is tenuous. But there are also real factors which make a high rate of expansion between 1949 and 1951 plausible. The year 1949 marked a decision to develop eastern Germany on a more autonomous basis: the dismantling of plants ceased; reparations out of current production and the provision of some essential raw material supplies to make this possible gave a stimulus to the economy; employment increased rapidly, particularly in industry, and idle capacities were put into use. The first year of the five-year plan represented a strenuous effort to raise the level of production in a co-ordinated fashion, as is shown by many of the quantity data (e.g., electricity and steel consumption), and had undoubtedly some real success. It is not surprising that at the end of a period of negative and dilatory policies, which had allowed economic activity to fall to exceptionally low levels, an abnormal expansion should take place when new positive directions or incentives were given to economic life. Something very similar had happened in western Germany in response to the currency reform, whose trigger effect also led to a growth rate of 20 per cent for one or two years. Thus, although the exact figures are in doubt, very high rates of expansion in eastern Germany during the period 1949 to 1951 are plausible.

By contrast, the national income of western Germany at 1936 factor costs fell less than that of eastern Germany between 1936 and 1949 and had recovered to, and beyond, the pre-war level by 1950, a year earlier than had income in eastern Germany. Apart from the stimulus given by the 1948 currency reform, which led to a dishoarding of hidden stocks, large-scale foreign aid helped greatly in this phase of the recovery, while eastern Germany was burdened and its re-equipment seriously hampered by reparations.

The aggregate rate of growth of the real net product in western Germany between 1950 and 1955 was about 50 per cent—almost 60 per cent for the " material branches of production " only.[5] The overall rise after 1950 is of the same order of magnitude as that in eastern Germany. But some allowance must be made for the difference in phasing of the expansion in the two countries. It has already been seen that the main expansion in eastern Germany seems to have taken place between 1949 and 1951, while that of western Germany occurred between 1948 and 1950. Again, after 1951 the rate of growth tended to be higher in western Germany than in eastern Germany. There are many reasons for this divergent development, but the rapid increase in the employed labour force and the much higher rate of capital formation in western Germany are certainly among them. The percentage of net national product devoted to " accumulation " (not including reparations) was of the order of 10 to 12 per cent in eastern Germany and 20 to 25 per cent in western Germany. Moreover, west German investment was spread over almost all sectors of the economy, while a good deal of east German investment went into new ventures in the heavy industries. Up to 1953 domestic investment was limited by the deadweight of reparation deliveries. The cessation of reparations enabled the east German economy to raise investments and consumption and to seek commercial export markets. But many of the commodities which had been delivered on reparations account did not meet competitive standards. In this sense the lifting of the reparations faced the east German economy with a new adaptation, and 1954 and 1955 were difficult years of transition. The reduction in occupation costs from 1957 onwards will give further relief. The backlog of investments needed for replacements, modernizing and new developments is, however, formidable in view of the tight supply position of raw materials and constructional capacity, and could scarcely be met adequately without substantial external aid.

[4] *Die Wirtschaft*, 12 April 1956.

[5] An estimate of western Germany's national income (eastern coverage) at constant 1936 market prices shows an increase of 64 per cent (see Table 4).

TABLE 5

Net domestic product by sectors of origin at constant prices

Percentages and index numbers

EASTERN GERMANY

	Percentages				Index numbers	
	1936 [a]	1949 [a]	1950 [b]	1955 [b]	1949 1936 = 100	1955 1950 = 100
Agriculture and forestry	19.5	18.2	17.4	12.0	64	112
Industry	49.2	52.0	40.6	49.6	73	199
Handicrafts			7.3	7.2		160
Building	8.6	6.8	5.1	5.9	55	185
Trade and catering	22.7	23.0	25.7	21.6	69	137
Transport			3.9	3.7		152
TOTAL	100	100	100	100	69	162

WESTERN GERMANY [c]

	Percentages				Index numbers			
					1949	1950	1955	1955
	1936	1949	1950	1955	1936 = 100			1950 = 100
Agriculture and forestry	16.2	14.7	14.1	10.8	86	97	120	124
Industry	47.7	52.1	47.8	53.7	92	112	202	180
Handicrafts	5.8		5.8	4.5		112	140	125
Building	6.6	6.3	6.7	7.0	91	114	191	167
Trade and catering	13.3	13.0	13.4	13.1	92	113	176	156
Transport	10.4	13.9	12.2	10.9	127	132	189	143
TOTAL	100	100	100	100	95	112	180	161

Sources: See "Sources and methods".

[a] Without East Berlin, at 1936 factor cost.

[b] Including East Berlin, at 1950 realized prices.

[c] Without West Berlin, at 1936 factor cost.

The Pattern of Production

By 1949 the pattern of output in eastern Germany had again become very similar to that of 1936, though at a much lower level (Table 5). Agriculture's contribution was just under 20 per cent and that of industry about one-half, while transport and trade accounted for about 25 per cent of the net output. The social and economic transformation of eastern Germany was, however, only beginning in 1949. By the middle 'fifties the structure was significantly different. Unfortunately, sector distributions for the 'fifties are available only at 1950 realized prices, and indirect taxes distort the position, giving undue weight to the trade sector and under-estimating the relative contribution of the building sector, which is practically free from indirect taxes. After very crude adjustments for estimated sector incidence of indirect taxes, it would appear that the share of agriculture in the total has fallen substantially, and that the trade and transport sector has also lost in relative importance, while the relative contribution of industry and building now accounts for over seven-tenths of the real product.

The official data, which include indirect taxes, show a slow growth of agriculture and of trade and transport, reducing their share in national income, and a vigorous expansion of industry and building

with a steeply rising share in the total. It will be noted that the output of industry proper at constant market prices almost doubled between 1950 and 1955, while the total national product rose by only about 60 per cent. This is not an inconsiderable achievement of the all-out drive for industrial expansion.

The west German changes in the structure of net output (eastern definition) have been less spectacular but broadly in the same direction. The relative share of agriculture has been falling steadily; transport and trade contribute relatively less than before the war, while industry and building contribute more. Their share in the total in 1955 is probably about the same in eastern and western Germany. The rate of expansion of different sectors was perhaps more balanced in western Germany; in particular, agricultural output expanded rapidly and much more than in eastern Germany between 1949 and 1955, reflecting, among other things, the positive support given to west German agriculture and the difficulties of the new agricultural policies in eastern Germany. The combined output of manufacturing and building industry appears to have risen in the two parts at about the same rate between 1949 and 1955; but it should be remembered that eastern Germany started from a lower level. There is no conclusive evidence that the gap in real product which existed between the two parts in 1949 is narrowing and that eastern Germany is gaining in relation to western Germany.

The recuperative powers of the two separate parts have been quite remarkable, but there is no reason to regard them as " miracles ". Once the political economic framework had been established in the late 1940s, three main forces asserted themselves.

(1) Unused capacity reserves came into play and labour reserves were drawn into employment. This raised the level of activity well above the exceptionally low level of the early post-war years.

(2) Investment opportunities were unusually favourable, and actual investment supplemented existing capacities and helped in the adjustment to current needs.

(3) The high level of technical knowledge and industrial skill which existed in both parts reasserted itself and became the mainspring which pushed the economy up to and above pre-war levels. A once acquired " state of the arts " is less easily lost than material wealth in time of war and is capable of serving different political and economic systems.

3. The Burden of Adaptation

The splitting up of an integrated economic unit is bound to create problems of re-adaptation which will be the more serious the more restrictions are placed on the trading between the two parts. In the case of Germany the effect of the splitting cannot be studied in isolation since the destruction during the war, dismantling after the war, and special economic measures taken by the occupational authorities, forced or hindered simple adaptation. Moreover, changes in the demand pattern at home and abroad would in any case have precluded return to the structure prevailing before the split. But it still seems useful to consider the consequences of the split, as if it had occurred at normal times, and this for two reasons. Considerable fears were expressed in the early post-war years that the economic division would do lasting and irreparable damage and make both territories non-viable. These fears did not seem to be entirely groundless. Secondly, although destruction and dismantling had changed capacities, it has been shown already that the broad picture of the economic structure in 1949 was similar to that of 1936, in spite of the obvious changes that had occurred in the relative importance of individual industries. It is useful, therefore, to get a picture of the disproportions, the deficiencies and surpluses, which a rigid division in 1936 might have produced.

A rough answer to the question whether considerable disproportions arose for industry through the territorial changes can be obtained by comparing the regional share of turnover of various industrial sectors or branches in 1936 in the aggregate turnover with the proportionate share in the gross national product of the two regions. Since the west German share in the national product in 1936 amounted to 71 per cent, it may be assumed that those industrial sectors or branches present a problem of adaptation —either as " surplus " or as " deficit " industries— whose share in the aggregate turnover in 1936 exceeded 80 per cent or fell short of 60 per cent. It would, however, be misleading to conclude that in all cases a surplus industry defined in this statistical manner presented a problem of surplus capacity, since imports from outside Germany may have been needed to supplement domestic supplies or surpluses may have been exported, and vice versa for deficit industries.

In the light of this statistical definition it appears that, if only the major industrial sectors are considered, western Germany maintained after the division a

share of industrial capacity which corresponded on the whole fairly closely to the statistical ratio. Moreover, it kept within its territory the basic raw material supplies like hard coal and iron ore, which constituted the foundation of its heavy industry, whereas for such important branches as mining, machinery, vehicles, electrical engineering, chemicals and textiles, taken as a whole,[6] the share of western Germany was within the range considered as normal. Only the groups of steel construction (Stahlbau), iron and steel products, rubber and asbestos, oils and fats, were surplus industries, and paper, cardboard and cellulose and clothing, deficit industries.

But these broadly defined groups conceal considerable divergencies within individual industries, so that in many cases problems of adaptation did arise. Thus, in the sector of mining, western Germany produced almost 100 per cent of Germany's hard coal, petroleum and iron ore, with correspondingly severe deficiencies on the east German side. On the other hand, brown coal and potash production were heavily concentrated in eastern Germany, and western Germany faced deficiencies. Most of the iron and steel processing was located near the hard coal supplies of the Ruhr Basin which, together with Upper Silesia, had supplied eastern Germany with these products. The division of Germany created in this respect a serious problem for eastern Germany. Within the machinery sector, textile and office machinery had been highly concentrated in eastern Germany, while large agricultural machinery and tractors were produced predominantly in western Germany. There has been heavy concentration of the production of paints and varnishes, leather goods and soap in western Germany, and of cardboard, woollen tissues, stockings, paper products, musical instruments and toys in eastern Germany. The list could be easily extended if product groups were further sub-divided and if the connection between stages of production or inter-industry relations were considered.[7]

Nor did problems arise only in the industrial sector. In agriculture, as will be shown in detail later, similar disparities occurred. Much of the beet sugar production, for instance, was located in eastern Germany, and disproportionate parts of the rye acreage. Western Germany as a whole seemed to be relatively deficient in agricultural supplies. The transport network was not laid out to take account of the zonal frontiers, and many of the banking, insurance and similar services were concentrated in the now divided city of Berlin.

It is not surprising then that a serious view was taken of the problems of adaptation to the political and economic division of Germany. On the whole, western Germany seems to have been better placed because it has a large share of fuel, heavy industries and investment goods suitable both for internal reconstruction and for foreign markets. Eastern Germany had a narrower energy base (mainly brown coal), a relatively small share of producer-goods industries, and a large share of industries producing a variety of consumer goods which were highly dependent on imported materials and, after the war, not much in demand in foreign markets. Destruction and dismantling affected both parts, but eastern Germany more seriously, especially in lines of production that were badly needed for reconstruction.

Adaptation problems differed greatly in the different sectors and branches, for surplus and deficit industries and policies of adaptation were different in the two parts of Germany. Neither for western nor for eastern Germany was there any difficulty in finding at home or abroad markets for potential surpluses of raw materials, such as hard coal, brown coal, fertilizers, potash, or for basic materials such as iron and steel. The potential surpluses never materialized, partly because the re-expansion of these branches was retarded, partly because demand for reconstruction and for voluntary and involuntary exports was unusually heavy in the late 'forties and early 'fifties. For similar reasons potential surpluses in the investment goods industries never became real but some of the consumer goods industries did experience difficulties and are still under-utilized: textiles and musical instruments in eastern Germany, paints and soap in western Germany are examples.

By and large, the problem of surplus industries was much more manageable than was anticipated. The high rate of expansion at home and abroad made adjustments much easier than they would have been in a climate of stagnation. The case of the deficit industries was more serious. But as technical and managerial knowledge was available, and as the rate of capital formation was higher than before the war, the gaps in manufacturing industries—not, however, in basic industries—were filled much more quickly than one could expect in the immediate post-war years. Differential rates of growth of output and high investment in the shortage industries took care of many adaptation problems. Imports of deficit and exports of surplus products acted as a subsidiary safety valve. The fringe of consumer-goods industries which, in spite of the over-all growth, found no outlets for their products, presents a problem of excess capacity, but has as far as one can see created no

[6] For disproportionalities within sectors, see *Economic Bulletin for Europe*, Vol. 1, No. 3.

[7] See Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956.

pockets of structural unemployment. Labour found work in other industries or in other locations.

The western German structural adaptation can be said to have been completed and successful by the middle 'fifties. There was no backlog of investment in particular industries; there was reasonably full employment assisted by the movement of labour to the centres of industry; western German products were internationally competitive, and the balance of payments showed comfortable surpluses.

For eastern Germany the process of structural adjustments has made strides, but is far from being complete. There are many reasons for this. It could be said that two adaptations were superimposed upon the eastern German economy. Heavy reparations made it necessary for industry to meet the requirements of the recipient countries; their cessation in 1953 meant a reorientation towards the needs of the home market and the commercial demands of eastern and western markets. Secondly, it can well be argued that, even without reparations, the eastern German problem of adaptation would have been more difficult than that in western Germany, because the reconstruction needs depended heavily on investment-goods and heavy industries, of which eastern Germany was relatively short, while consumer-goods and light industries remained under-utilized for want of markets or for want of raw materials and thus could not help to buy essential raw materials or equipment. Last but not least, economic policy was not geared to optimal adaptation, but set its own goals and planned priorities. Far-reaching socio-economic changes were carried out and, whatever their ultimate results, the new forms of organization had their teething troubles. Large-scale operations create their own managerial, administrative, technical and human problems which are only gradually solved, and not without cost. Central planning deliberately chose a pattern of reconstruction which, in line with that of other eastern countries, emphasized the development of heavy industry. Priorities in investments, in raw material supplies and labour allocation were given to the preferred sectors, which often yield their full returns only after years, while investments yielding quick returns were frequently postponed. The planners wanted to change the economic structure in accordance with their views of long-term requirements, and hence imposed new problems of adaptation over and above those created by war and territorial split. The preoccupation with priority sectors left the rest of the economy to makeshift adjustments and now the need for modernization, for replacement of over-aged and obsolete equipment, for new designs and for quality improvements, is felt on a broad front. This is evidence tending to show that the process of adaptation is incomplete. Another line of policy is also likely to have exerted a retarding influence on the normal adjustment of the economy. Before the war, the east German economy, as will be seen later, was geared to foreign trade mainly with the western world. The shift to the eastern world created considerable supply problems and demanded new adjustments in response to the needs of eastern markets.

It is clear, therefore, that the adjustments required from the eastern German economy were very much more complex than the adaptations of the western German economy, which, helped at a crucial stage by foreign aid, left it by and large to the market mechanism, to profitability calculations of business men, and to the mobility of labour to satisfy the needs of the home market and to bring about the reintegration of the economy into its traditional western markets.

4. Adjustments in Agriculture

Land and Manpower

Even before the war, eastern and western Germany showed a very different relation of manpower to land, though there were, of course, exceptional regions on both sides. The difference emerges in the over-all labour/land ratios. Before the war there were 36 active persons in agriculture per thousand hectares of agricultural area in western Germany, as against 26 in eastern Germany. Related to the arable area, the figures were 61 and 33 respectively. The large difference in the labour/land ratio can be explained partly by the size structure of farms (see Table 6). Almost half of the land in western Germany belonged to farms between ten and fifty hectares and less than 5 per cent to farms above 100 hectares, while in eastern Germany very large farms comprised more than 28 per cent of the agricultural area. The pattern of production, reflected partly in the size structure of farms, was characterized in western Germany by an even balance between crops and livestock and, within crops, between more or less labour intensive products, while in eastern Germany crops predominated, with somewhat more grains and somewhat less fodder crops than in western Germany. A further consequence of the different pattern of farming in eastern Germany was that it relied much more than western Germany on seasonal labour, which came mostly from eastern European countries.

On both sides the consequence of the war and of the split was a considerable initial increase in

TABLE 6

Numbers and agricultural area of farms by categories of size

Thousands, thousand hectares and percentages

Category of farm size	Number	Percentage	Area	Percentage
EASTERN GERMANY				
1939				
Less than 1 hectare .	134.5	22.8	87.4	1.4
1– 5 hectares . . .	201.9	34.3	494.8	7.7
5– 10 hectares . . .	93.9	15.9	678.3	10.6
10– 20 hectares . . .	95.2	16.2	1 351.4	21.1
20– 50 hectares . . .	48.7	8.3	1 436.0	22.5
50–100 hectares . . .	8.1	1.4	534.0	8.4
More than 100 hectares	6.3	1.1	1 809.3	28.3
	588.6	100	6 391.2	100
1949				
Less than 1 hectare .	194.7	24.0	122.6	2.1
1– 5 hectares . . .	198.6	24.4	538.6	8.9
5– 10 hectares . . .	256.8	31.6	1 946.9	32.2
10– 20 hectares . . .	115.8	14.2	1 638.3	27.1
20– 50 hectares . . .	46.7	5.7	1 575.8	26.1
50–100 hectares . . .				
More than 100 hectares	0.7	0.1	218.6	3.6
	813.3	100	6 040.8	100
1955				
Less than 1 hectare .	305.3[a]	38.0	466	7.2
1– 5 hectares . . .	167.5	20.9	486	7.5
5– 10 hectares . . .	188.9	23.5	1 561	24.1
10– 20 hectares . . .	91.7	11.4	1 340	20.7
20– 50 hectares . . .	26.2	3.3	771	11.9
50–100 hectares . . .	1.3	0.2	84	1.3
More than 100 hectares	22.2[b]	2.8[b]	1 768[b]	27.3[b]
	803.1	100	6 476	100
WESTERN GERMANY[c]				
1939				
Less than 5 hectares .	1 245.3	61.0	2 588.4	18.6
5– 10 hectares . . .	413.5	20.2	2 918.9	21.1
10– 20 hectares . . .	253.9	12.4	3 510.0	25.3
20– 50 hectares . . .	114.6	5.6	3 313.6	23.9
50–100 hectares . . .	13.5	0.6	874.7	6.3
More than 100 hectares	3.5	0.2	671.6	4.8
	2 044.3	100	13 877.2	100
1949				
Less than 5 hectares .	1 194.4	60.4	2 464.2	18.3
5– 10 hectares . . .	400.7	20.2	2 840.2	21.1
10– 20 hectares . . .	254.8	12.9	3 525.0	26.2
20– 50 hectares . . .	122.4	5.7	3 245.2	24.1
50–100 hectares . . .	12.7	0.6	822.5	6.1
More than 100 hectares	3.0	0.2	561.1	4.2
	1 978.0	100	13 458.2	100

Sources : 1939: Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956; 1949: *Statistisches Jahrbuch* [W.G.], 1956 and [E.G.] 1955; 1955: *Statistische Praxis*, No. 5, 1956.

NOTE. — The data for 1939 and 1949 refer only to the areas covered by agricultural census. The 1955 data cover all agricultural land.

[a] Only farms between 0.5 and one hectare.

[b] Includes all non-private farms, irrespective of size.

[c] No data are available after the census of 1949.

agricultural population. In eastern Germany by 1946 the active population in agriculture had increased by 40 per cent as compared with 1939. In western Germany the increase does not seem to have exceeded 15 per cent for the same period. Moreover, in eastern Germany the influx of manpower into agriculture occurred rather rapidly, while in western Germany the arrivals from the east were spread over several years. But these shifts of population into agriculture were a short-lived phenomenon. Population had drifted from the destroyed towns and refugees were allocated to rural areas and many of them found temporary employment on the land. By the early 1950s total agricultural manpower had already returned to near the pre-war level in both areas.

The land reform carried out in eastern Germany shortly after the war might appear as an attempt to adjust the farm structure to the post-war relation between land and manpower. Economic considerations of this kind may have played a part, but the decisive force behind the land reform was a social and political reasoning like that which motivated the land reforms in other European countries after the first world war. The holdings created were hardly of optimum size, likely to decrease rather than increase labour productivity, and tending to hold more manpower in agriculture than was consistent with the policy of industrial reconstruction after 1949. Given the land reform, the change-over to the more intensive pattern of land use shown in Table 7 was, in a period of severe shortages, determined by demand.

In western Germany an easier foreign trade position allowed agricultural policy a wider choice, and permitted the development of slightly less labour-intensive land use, though the area under sugar doubled. In contrast to eastern Germany, the greater availability of the appropriate agricultural inputs made it possible to improve yields of labour-intensive crops by about as much as those of grains.

While in western Germany the size distribution of farms remained virtually unchanged, the land reform of eastern Germany not only eliminated the large private farms, but also reduced land belonging to farms between 20 and 100 hectares; and even the increase of holdings in the category of 10 to 20 hectares was extremely limited. By 1949, 43.1 per cent of agricultural land in eastern Germany, or more than twice as much as before the war, belonged to farms with less than 10 hectares.

From 1952 onwards, an attempt was made to overcome the adverse effects of the pattern of distribution of farm land in eastern Germany by the creation of collective farms, with the result that in 1955 the land belonging to the large farms of the " socialist

TABLE 7

Land use

Thousands of hectares and percentages

Commodity	Eastern Germany						Western Germany					
	1935–39		1950		1955		1935–38		1950		1955	
	1.000 ha	%	1.000 ha	%	1.000 ha	%	1.000 ha	%	1.000 ha	%	1.000 ha	%
Grain	3 109	60.4	2 717.7	54.1	2 483.4	49.8	5 161	60.0	4 408.2	55.1	4 804.1	59.4
Pulses	84	1.6	157.3	3.2	108.6	2.2	91	1.1	86.5	1.1	44.1	0.5
Oleaginous crops	34	0.7	183.3	3.7	195.6	3.9	85 [a]	1.0	62.8	0.8	17.3	0.2
Vegetables	..	..	118.9	2.4	75.1	1.5	81	0.9	88.6	1.1	81.5	1.0
Sugar beet	186	3.6	223.7	4.5	223.9	4.5	132	1.5	199.7	2.5	268.3	3.3
Potatoes	795	15.4	811.6	16.2	842.9	16.9	1 162	13.5	1 141.4	14.3	1 128.3	14.0
Root fodder crops	226	4.4	262.8	5.2	336.9	6.7	620	7.2	683.4	8.6	582.6	7.2
Green fodder	..	..	452.8	9.0	659.7	13.2	1 223	14.2	1 239.0	15.5	1 086.7	13.5
Other	..	..	89.2	1.7	65.4	1.3	54	0.6	82.7	1 0	69.8	0.9
Total arable land	5 149	100	5 017.3	100	4 991.5	100	8 609	100	7 992.3	100	8 082.7	100

Sources: Eastern Germany: **1935-39:** Mr. Kramer, *Die Landwirtschaft in der Sowjetischen Besatzungszone*, Bonn, 1951; **1950 and 1955:** *Statistische Praxis*, No. 6, 1956. Western Germany: **1935-38:** *Bericht über die Lage der Landwirtschaft*, Bonn, 15 February 1956; **1950 and 1955:** *Statistisches Jahrbuch* [W.G.], 1953 and 1956.

[a] All technical crops.

sector " [8] almost reached the share of the area covered by the big private farms before the war. There are, however, two significant differences between the 1955 and the 1939 structure. Only a small part of the present collective farms and most of the state farms have as yet reached a stage when they can be regarded as well-integrated and balanced units suitable for large-scale farming. In the second place, the intermediary category of medium-sized farms between 10 and 100 hectares, which is the very backbone of prosperous farming in western Germany, has shrunk from 52 per cent in 1950 to 33.9 per cent in 1955.[9] The maladjustment of the farm structure was further aggravated by the changes in the pattern of production. The area occupied by labour-intensive crops increased and areas under grain decreased. This shift in land use may be estimated to have increased the total amount of work theoretically required for crop production in the years 1950 to 1955 by 10 to 20 per cent as compared with pre-war, while the available labour force, unsupported by foreign seasonal workers, was below the pre-war level. The effects of these changes in land use can be seen in the relative movements of crop yields. While the yields of grain were on the whole rather favourable in eastern Germany, those for labour-intensive crops, especially sugar beet and potatoes, suffered considerably from insufficient cultivation.

[8] The 1,770,000 hectares belonging to the socialist sector in 1955 were distributed as follows:

Category	*Total area*	*Average size*
	(Hectares)	
540 state farms	283 500	525
15 798 farms of public property [a]	283 200	18
5 879 co-operative farms	1 143 900	195
86 708 private plots of co-operative farmers	60 100	0.7

[a] Mostly farms abandoned by peasants, but also some belonging to institutions, industrial enterprises, etc.

[9] The considerable importance of this category of farmers for the short-term prospects of east German agriculture was apparently recognized about two years ago, and discrimination against them has been reduced, while attempts are being made to obtain their participation in collective farms.

Supplies for Agriculture

Inputs other than manpower were, of course, also of great importance for the development of yields in the different branches of agriculture. Mechanization, which proceeded rapidly in both eastern and western Germany, was one of the means of overcoming the manpower shortage. Fertilizers and other materials were of almost equal importance.

Tractor Motive Force

HP per 100 hectares of agricultural land

Eastern Germany		*Western Germany*		
1939	*1955*	*1935/38*	*1950*	*1955*
7	< 20	3.4	23.1	52.8

Sources: Eastern Germany: 1939: Professor B. Gleitze; *Ostdeutsche Wirtschaft*, Berlin, 1956; 1955: estimate based on published figures for MTS and state farms and an allowance for some tractors in private hands. *Western Germany: Bericht über die Lage der Landwirtschaft*, Bonn, February 1956.

TABLE 8

Deliveries of artificial fertilizers

Kilogrammes of pure content per hectare of agricultural area

Year	Nitrogenous		Phosphorous		Potash		Lime	
	Eastern Germany	Western Germany	Eastern Germany	Western Germany	Eastern Germany	Western Germany	Eastern Germany	Western Germany
1938/39	32.8	23.6	27.3	28.3	48.7	43.4	78.1	56.4
1950/51	29.5	25.6	11.6	29.6	55.9	46.7	86.3	47.5
1954/55	31.6	31.7	19.9	36.4	61.7	60.2	104.1	42.6

Sources: Eastern Germany: *Statistische Praxis*, No. 6, 1956. Western Germany: *Bericht über die Lage der Landwirtschaft*, Bonn, February 1956.

The use of tractors was fairly limited in pre-war Germany, with a somewhat higher tractor density in eastern than in western Germany. After the war, tractor numbers increased substantially in both parts, but the absolute level of tractor density became much higher in western than in eastern Germany. It is frequently claimed that the amount of work performed per tractor is considerably bigger in the framework of the machine and tractor stations than on medium-sized private farms. This may be true, but it is questionable whether, in actual experience, such advantages of more intensive utilization were not outweighed by the shortage of spare parts and the frequent breakdowns of tractors in eastern Germany during the whole post-war period. Though it would be exaggerated, at least since 1954, to speak of an actual shortage of motive power in eastern Germany, the stock of tractors which could be used simultaneously at seasonal peak periods is probably too low and leads to delays in cultivation and harvest work. The less well utilized, but better distributed and larger, stock of tractors in western Germany would seem to give better results. If animal motive power is taken into account the picture is not changed much. In western Germany animal motive power (i.e., horses, oxen and other draught animals converted into units equivalent to a horse) per 100 hectares of agricultural area decreased from 12.4 before the war to 12.1 in 1950 and 9.6 in 1955. In eastern Germany it decreased from about 13 before the war to about 11 in 1950 and remained fairly stable up to 1955.

Much more important than insufficient tractor utilization in eastern Germany was the fact that, until recently, labour-saving machinery did not alleviate to a significant extent the shortage of manpower, especially in cultivating work. Although it cannot be shown statistically, it may be inferred from east German critical comments that the mechanization of cultivating and harvesting is on the whole less advanced in eastern Germany than in the medium-sized farms of western Germany. The shortage of this type of equipment is felt particularly on collective and state farms which tend to be short of labour.

Deliveries of artificial fertilizers are summarized in Table 8. West German agriculture, which traditionally used less artificial fertilizer and more manure, managed to get its supplies well above the pre-war level (the spectacular increase in nitrogenous fertilizers being related to the expansion of grain production). This increase was secured even for potash, for which eastern Germany continues to be the main supplier. Eastern Germany increased substantially its consumption of potash from its own supplies and managed to reach almost the pre-war level for nitrogenous fertilizers for the output of which energy, not capacity, was the main bottleneck. There is, however, a severe shortage of phosphorous fertilizers, which are mainly imported from hard currency areas, and this has affected the yields of root crops very unfavourably. Adequate imports of phosphorous fertilizers would be expensive and require an estimated outlay of $20 million to $30 million, equivalent to about one-tenth of eastern Germany's total export takings in the western markets. Nor could it be said that natural manure makes up for such deficiencies. Not only is the density of cattle considerably higher in western Germany but for various reasons (farm buildings, technique, feeding) the intensity and efficiency of the use of natural manure is, just as before the war, greater per unit of cattle in that area than in eastern Germany.

As far as seeds are concerned, it is generally recognized [10] that the shortage of seed potatoes is one of the main reasons for insufficient yields. In fact, the decrease of the seed potato output between 1952 and 1955 could not be made good by increased imports from the traditional supplying areas—i.e., western Germany and the Netherlands—mainly because of the shortage of hard currencies.

Supplies of insecticides, pesticides and other materials needed by agriculture have been affected by recurrent shortages combined with irregularities and maladjustments of distribution. However, it seems that, especially for materials of domestic production, prices were kept low enough not to discourage their use by the poorer peasants.

Level and Pattern of Output

In the absence of really comparable series on aggregate output before and after the war, it is impossible to assess with accuracy the over-all production performance of east German agriculture. One may, however, venture a rough estimate that, after having been about 15 to 20 per cent below the pre-war level in 1950, net output of agriculture approached that level in 1954/1955. On the other hand, gross production of foodstuffs seems to have expanded somewhat faster, because considerable imports of feeding stuffs, especially coarse grain, helped to increase animal output.

In western Germany, net agricultural output at constant (1936) prices was practically back at the pre-war level in 1950 and exceeded it by 20 per cent in 1955. Indices of principal products in the years 1936, 1950 and 1955 (Table 9) indicate that the output of sugar and various animal products rose much more than that of grain, potatoes and fodder. In this respect western Germany has followed the same tendency as eastern Germany—namely, to raise the share of animal products in total agricultural production.

The orientation of output in eastern Germany was determined by its inclusion in the " eastern market " and by its chronic difficulties in paying for imports from western sources. It was apparently considered that, within their over-all shortage of agricultural products, the countries of the eastern group were still more likely sources for grains than for animal products. Consequently, eastern Germany has made great—and, as will be seen, only partially successful—efforts to reduce the import gap in animal products. On the other hand, there was an unsatisfied demand in the eastern market for eastern Germany's main agricultural export item, sugar. These were the main factors responsible for the changes in the pattern of land use shown in Table 7.

[10] See, in particular, *Statistische Praxis*, No. 4, pp. 43–44.

TABLE 9

Index numbers of output of selected farm products in western Germany

1935/38 = 100

Commodity	1950	1955
Grain [a]	87	106
of which :		
Bread grain [a]	91	110
Coarse grain [a]	83	102
Potatoes [a]	131	107
Sugar beet	133 [b]	171 [b]
Meat	—	117 [c]
Milk	93	113
Butter	109	122
Eggs	—	126 [c]

Source : Bericht über die Lage der Landwirtschaft, Bonn, 15 February 1956.
[a] The basis was adjusted for the 10 per cent under-estimate in pre-war statistics.
[b] On the basis of sugar-beet processing data.
[c] 1954/55.

It is impossible to get eastern German harvest data comparable to pre-war or to western German figures by multiplying biological yields (in Table 10) and areas (in Table 7). Harvest losses [11] vary between 15 and 20 per cent for grain, and around 12 per cent for potatoes and 8 per cent for sugar beet, but little is known about the wide year-to-year variations. The following discussion will attempt to make the best possible use of the biological harvest data.

The bread grain crop has increased from 3.6 million tons net in 1934-1938 [12] to 3.9 million tons gross in 1950-1955, equivalent to about 3.3 million tons barn yield, if 15 per cent is allowed as a long-term average for losses. In any case, by 1955, with a 3.7 million ton biological harvest, eastern Germany still imported 16 per cent of its total bread grain supplies.[13]

[11] For a fuller treatment of the problem of biological yields see the *Economic Survey of Europe in 1951*, pp. 223-224. Recently, most eastern European countries have, partly or entirely, abandoned this method of evaluating harvests.

[12] It is generally considered by west German experts that the pre-war harvest statistics of grains and potatoes were, for Germany as a whole, about 10 per cent under-estimated. The Ministry of Agriculture is therefore now using correspondingly revised pre-war yield figures. But the figures in Table 10 take no account of this revision, because similar adjustments to yield data cannot be made for eastern Germany. The index numbers of harvest yields of western Germany are based, however, on the revised yield estimates.

[13] Cf. *Statistische Praxis*, No. 6, 1956.

TABLE 10

Crop yields

Quintals per hectare

Period	Wheat	Rye	Barley	Oats and mixed grain	Rape	Potatoes	Sugar beet	Fodder beet
EASTERN GERMANY								
1934-38	24.6	17.1	23.4	21.2	20.1	173.0	291.0	443.0
1950	25.4	18.7	22.5	20.8	13.2	181.2	273.1	345.9
1955	31.8	22.9	29.2	27.2	17.5	143.6	286.1	481.9
1950-55	29.2	21.3	26.3	25.0	13.9	173.4	293.6	423.0
WESTERN GERMANY								
1934-38	22.0	18.5	21.0	20.4	17.4	165.7	327.5	427.2
1950	25.8	22.2	24.0	21.9	16.6	244.9	361.6	465.8
1955	28.8	23.7	26.7	25.7	18.1	202.7	341.3	497.3
1950-55	27.4	23.8	25.7	24.5	17.4	217.9	344.9	444.7

Source : Eastern Germany: *Statistische Praxis*, No. 6, 1956. Western Germany: 1934-38: Professor B. Gleitze: *Die Ostdeutsche Wirtschaft;* 1950-55: *Statistisches Jahrbuch* [E.G.], 1953 and 1956.

NOTE. — The official yield statistics are not comparable either between eastern and western Germany or between pre-war and post-war years within each area: they reflect, however, relative developments of yields for different crops within each area.

In coarse grain the 1934–1938 net harvest was 2.9 million tons, the 1950–1955 average 3 million tons gross, or something like 2.6 million tons net. The import dependency seems to have been higher than for bread grains (with large year-to-year changes according to the export availabilities of eastern trading partners).

Oleaginous crops, hitherto extensively cultivated in Germany only in periods of war and of balance-of-payments difficulties, show opposite trends in cultivated areas and yields. In eastern Germany the area under oleaginous crops increased almost six times by 1955 as compared with pre-war, while at the same time the biological yields of rapeseed show a decrease of more than 30 per cent in the average of 1950 to 1955 as against pre-war; this means that the total crop increased, at best, by four times. In western Germany oleaginous crops were practically discarded from the sowing pattern, but for the residual the yields remained fairly stable.

The expansion of the area under potatoes was small in eastern Germany as against a slight decrease in western Germany. Taking good and bad years together, the harvest in eastern Germany seems to have averaged only 3 to 5 per cent less in the 1950–1955 period than before the war; but after the relatively good harvests of 1950 and 1951 there appears to have been a decline, and it is known that the excellent prospects of 1954 were not translated into a correspondingly good net harvest because of heavy losses. Much more than in western Germany, where yields have averaged 30 per cent more than before the war, the potato crop is a matter of major concern for east German agriculture as potatoes are not only important for human consumption but are also very extensively used as fodder for pigs.

In sugar beet, the expansion of areas was common to both eastern and western Germany: for exports in the first case and for increasing self-sufficiency in the second. Once again it is difficult to give statistical precision to the achievements of eastern Germany in this field. The sugar beet harvest rose from 5.4 million tons delivered to factories in the average of 1934–1938 to 6.3 million tons in 1950–1955 measured in terms of biological yields. A good picture of the harvest delivered to factories can be gathered from the statistics of sugar production. In 1950–1955 the output of refined sugar averaged 690,000 tons. Assuming that each ton of sugar beet yields 140 kg. of refined sugar,[14] the net harvest would be in the neighbourhood of 5 million tons. In other terms, a decrease in yields induced by short supplies of phosphorous fertilizers and manpower more than

[14] At the west German rate of 160 kg., the net crop would have averaged 4.3 million tons.

outweighed the 20 per cent increase in sown area as compared with pre-war. In western Germany the problem of the sugar deficit created by the split was practically overcome by more than doubling areas of cultivation and improving yields under the incentive of a very high price for domestic sugar. The gap of about one-fifth in sugar supplies which has persisted in recent years can be easily and advantageously filled by imports, including some from eastern Germany.

In the years following 1950 the main effort in eastern Germany was concentrated on livestock production. By fixing the number of animals to be kept on each farm, the authorities managed to push up livestock densities significantly above the pre-war level (see Table 11). Livestock density (excluding poultry), measured in conventional units [15] per 100 hectares, was about 84 in 1955, as compared with 78 before the war. In western Germany, the corresponding figures are 99 and 89 respectively.

There was, however, a very considerable difference in the fodder basis in the two areas. While in western Germany the so-called main fodder area (that is, pasture, grassland and fodder crops) represents in 1955 around 51 per cent of the total agricultural area, the percentage is only around 35 in eastern Germany. Calculated per conventional unit of cattle (excluding pigs) the main fodder area increased in western Germany from 0.62 hectares per unit before the war to 0.66 hectares in 1955, while in eastern Germany it increased from slightly below 0.50 hectares before the war to 0.53 hectares in 1955. There was, nevertheless, a significant improvement between 1951 and 1955, when the area under catch crops [15a] expanded from roughly 298,000 hectares to 919,000 hectares (catch crops are not included under the main fodder areas). There was also a significant improvement in east German yields of some fodder crops, especially fodder beet in recent years (but not in comparison with the pre-war level), though this was more than outweighed by the recurrent shortage of potatoes and hay.

The results of the fodder shortage in eastern Germany are reflected in average slaughter weights, which fell considerably below the pre-war levels. Slaughter weights of pigs decreased also in western Germany, but this seems to correspond mainly to a change-over to pig breeding for meat rather than for fat production.

Average Slaughter Weights in eastern and western Germany

Kilogrammes

	Eastern Germany			*Western Germany*		
	1938	*1950*	*1955*	*1938*	*1950*	*1955*
Cattle (excluding calves)	260	181	187	256	255	256
Pigs	104	100	80*	101	96	88

Sources: See "Sources and methods".

It is virtually impossible to get really comparable figures for pre- and post-war meat output in eastern Germany or even comparable post-war data for both eastern and western Germany.

The estimates of pre-war meat production in eastern Germany vary between 610,000 tons in 1936 [16] and 800,000 tons in 1938.[17] The estimate of Professor B. Gleitze for 1934-1935 of slightly more than 700,000 tons, seems to reflect most adequately the pre-war average. Official post-war data are available only in terms of live weight: 625,000 tons in 1950 and 1,169,000 tons in 1955.[18] However, from the published figures of *per capita* consumption [18] and imports [19] it can be derived that the corresponding figures in terms of meat were 340,000 tons in 1950 and 696,000 in 1955.[20] It can be said that by 1955 the pre-war level of meat

[15] The conventional units are those used by the Deutsches Institut für Wirtschaftsforschung.

TABLE 11

Livestock density

Numbers per 1,000 hectares of agricultural area

Item	Eastern Germany			Western Germany		
	1936	1950	1955	1935–38	1950	1955
Horses . .	122	111	103	105	106	77
Cattle . .	539	556	581	829	789	809
of which: Cows .	293	249	324	410	406	396
Pigs . . .	925	878	1 394	855	842	1 024
Sheep . .	238	167	279	129	116	83
Goats . .	104	253	132	94	95	53
Poultry .	..	4 090 [a]	4 200	3 279	3 667	3 925

Sources: Eastern Germany: *Statistische Praxis*, No. 6, 1956. Western Germany: *Bericht über die Lage der Landwirtschaft*, Bonn, February 1956.
[a] 1951.

[15a] Fodder crops between main crops.

[16] *Economic Bulletin for Europe* 1949, Vol. 1, No. 3, p. 30. Only cattle and pigs, locally raised and slaughtered.

[17] *Statistisches Handbuch von Deutschland*, 1928–1944, p. 232. Includes imported animals locally slaughtered, but excludes poultry.

[18] *Statistisches Jahrbuch* [E.G.], 1955, p. 225 and p. 103.

[19] See Section 6 below on trade.

[20] This is equivalent to 107 kg. of meat per hectare of agricultural land. In western Germany meat output in 1954/1955 was 2.2 million tons, or 155 kg. per hectare.

TABLE 12

Milk yields and output

Tons

Year	Milk yield per cow Tons per year		Total milk output			
			Thousand tons		Tons per ha. of agricultural area	
	Eastern Germany	Western Germany	Eastern Germany	Western Germany	Eastern Germany	Western Germany
1938 .	2.55	2.46	4 954	14 906	0.76	1.02
1951 .	2.20	2.64	3 805	15 170	0.58	1.07
1955 .	2.45	2.94	5 077	16 907	0.78	1.19

Sources : Eastern Germany: *Statistisches Jahrbuch* [E.G.], 1955; *Statistische Praxis*, No. 6, 1956. Western Germany: *Statistisches Jahrbuch* [W.G.], 1956.

output was reached, but with a significantly greater number of animals. Within the total meat output, pork accounts for a higher share than before the war.

The differential development of livestock yields and numbers is also apparent in milk production, though to a smaller extent. As appears from Table 12 on milk yields and output and from Table 11 on livestock densities, the number of cows in eastern Germany reached by 1955 a level ten per cent higher than pre-war, while yields were roughly 5 per cent below pre-war. As a result, total milk output is only slightly above the pre-war level, and output of milk per hectare of agricultural area is now lagging more behind that of western Germany than before the war. In western Germany, on the contrary, a slight decrease in cow numbers corresponded to a steep increase in milk yields bringing the total milk output to more than 13 per cent above the pre-war level.[21]

Lines of Agricultural Policy

In western Germany agricultural expansion was not achieved without a large measure of protection, partly, and in the initial stages, given on balance-of-payments grounds, partly for long-established social and political reasons. Methods of protection were consolidated in 1950/1951 by the establishment of marketing offices with the task of controlling imports and operating stock-piling schemes. Definite supply programmes are prepared at the beginning of each year. For cereals and sugar, prices are fixed annually by law. Import controls are used to influence the domestic price level of other agricultural products. Above and apart from this over-all regulation, a variety of subsidies are in operation which make it difficult to assess the total cost of agricultural protection to the consumer. At the present level of output, marginal costs of most products lie well above the world market level.

The adjustment of western German agriculture was helped by these protective measures, which steered resources into desired directions [22] and, through the offer of favourable prices, tended to improve yields. But in contrast to eastern Germany, western Germany confined its agricultural planning to providing differential incentives without laying down detailed programmes of production and deliveries.

Western Germany re-built its agriculture without a change in farm structure, relying on the incentives of high domestic prices and direct or indirect subsidies for farm supplies. Agricultural policy was directed towards an expansion of sugar beet and animal output. Output and yields increased substantially and are well above the pre-war level in the major lines of agricultural production, and this was achieved with a declining agricultural labour force, greater investments and greater use of fertilizers.

Eastern Germany started with a land reform that tended to make agriculture more labour-intensive. The collectivization a few years later was designed, among other things, to counteract this tendency by the substitution of capital for labour, but so far has yielded limited results because the supply of mechanical appliances and of fertilizers has been inadequate in relation to the change in output pattern.

The change in output was largely a matter of necessity—namely, to secure a minimum diet for the population out of domestic resources at a time when agricultural output was still at a low level, and to secure essential supplies from abroad by exporting readily saleable sugar. There was one further constraint on the economy—the tight balance-of-payments position, which led to economies in important supply materials for agriculture. It made it undesirable to buy the relatively expensive animal products which were, in any case, in short supply in eastern markets. As a long-term policy, the attempt to supplement home-grown fodder by imported feeding-stuffs and to convert them into animal products seems to be the kind of specialization in agriculture that is suitable for a highly developed country. One

[21] See also p. 28 of this *Bulletin* for a fuller discussion of differences in milk yields in eastern and western European countries.

[22] This does not imply a value judgement on the rationality of the aims and methods of agricultural policy.

may, however, have some doubts as to whether the new farm structure is particularly suited for this task. The more immediate aims of agricultural policy will have to be directed towards the creation of a firm basis for raising productivity in many branches, and in the private as well as the socialized sector of agriculture, by improvements in the utilization of farm equipment, by greater investment in labour-saving equipment, by providing suitable fertilizers and adequate quantities and qualities of seeds. Deficiencies of this sort have made the progress of agriculture in eastern Germany uneven and kept it below the rate which might have been achieved if somewhat greater resources had been allocated to this basic and important industry.

5. The New Pattern of Industry

Since industry [23] accounts for over two-fifths of the net output of the material branches of production in both parts of Germany, this sector was bound to be particularly affected by the new post-war situation. The industrial sector as a whole expanded faster than all the other sectors of the economy, as has been noted, but it remains to explore how the various branches of industry contributed to the growth and what changes occurred in their relative importance.

An examination of structural changes within industry calls for data on both employment and production with suitable industrial sub-classifications. Employment figures for the two parts of Germany and for the pre-war and the post-war period are available and can be made reasonably comparable. As a measure of the productive performance of different branches of industry, data on net output at constant prices would be the most suitable, but they are not available for either area. Production indices by branches are good indicators in the short run and will be used together with quantity data for a number of selected commodities. The turnover of industrial branches at current market prices, or at constant prices, would give some clues to structural changes. Here again, comparability is impaired by the fact that, though eastern Germany presents data on gross production (a concept similar to that of turnover), these are at "accounting prices" or "Messwerte", which bear little relation to actual prices. The interpretation of the productive performance of industries will have to make use of all these heterogeneous data and to qualify their comparability as may be necessary in each case.

Changes in Industrial Employment

The number of wage and salary earners in industry increased by about a quarter in eastern Germany and by about three-fifths in western Germany between 1936 and 1955.[24] As the number of working owners fell in the east but increased in the west, differences in total manpower changes were slightly greater than is indicated by the employment figures.

The growth of employment was very unevenly distributed between the major branches of industry. This can be seen from Table 13 in which the data for western Germany are, as far as possible, adapted to the terminology and classification employed in eastern Germany. In both eastern and western Germany producer goods industries show a much higher growth than consumer goods industries. There was, however, a fundamental difference in the development of the two sectors of producer goods industries—namely, basic materials (which cover in the eastern terminology energy, mining, metal-making,[25] chemicals and building materials) and metal processing. In eastern Germany the increase in employment in basic industries from 1936 to 1955 was very rapid, and relatively greater than in any single sector of western Germany despite the latter's much faster over-all expansion. In western Germany the expansion was outstanding in the metal-using industries, though all sectors shared in the growth. In other words, out of a 0.7 million net addition to industrial employment in eastern Germany, just over half went to basic industries, just under half to metal-using industries, while the marginal increase in food industries was partly compensated by a decrease in light industries. In western Germany, out of a net increase of more than 2.7 million, 1.2 million went to metal-using, more than 0.7 million to basic industries, the same number to light industries, and less than 0.1 million to food industries.

As a result of the differential rates of change indicated by these employment figures the industrial

[23] Industry includes, apart from manufacturing industry, mining and energy, but not building and civil engineering. All statistics in this section refer only to establishments with 10 or more employees.

[24] Employment data are not comparable with census data on active population, because of difference in coverage and, for the pre-war period, different years of reference.

[25] The eastern definition, applied in these tables, includes under "Metallurgy" only metal-making—i.e., iron and steel-making, non-ferrous metallurgy and rolling mills—while casting and forging are classified under engineering. However, the adjustment of pre-war and post-war west German statistics to this concept can be only very rough.

TABLE 13

Employment in the main sectors of industry [a]

Thousands, percentages and index numbers

Item	1936		1950		1955		1950	1955	
	Thousands	Percentage	Thousands	Percentage	Thousands	Percentage	Index numbers		
							1936=100	1936=100	1950=100
Basic materials									
Eastern Germany	389	19.8	619	27.4	748	27.9	159	192	121
Western Germany	1 140	26.9	1 557	30.7	1 886	27.1	137	165	121
Metal-using industries									
Eastern Germany	619	31.3	751	33.3	938	35.0	121	152	125
Western Germany	1 424	33.6	1 662	32.7	2 639	37.9	117	185	159
Light industries									
Eastern Germany	796	40.3	716	31.8	772	28.8	90	97	108
Western Germany	1 295	30.6	1 510	29.7	1 999	28.7	117	154	132
Food industries									
Eastern Germany	169	8.6	170	7.5	224	8.4	100	133	132
Western Germany	377	8.9	350	6.9	438	6.3	93	116	125
TOTAL									
Eastern Germany	1 973	100.0	2 256	100.0	2 682	100.0	114	136	119
Western Germany	4 236	100.0	5 079	100.0	6 962	100.0	120	164	137

Sources: **1936:** Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956; **1950 and 1955:** eastern Germany: *Statistisches Jahrbuch* [E.G.], 1955; western Germany: *Statistisches Jahrbuch* [W.G.], 1953 and 1956; West Berlin: *Berliner Statistik*, Sonderhefte.

NOTE. — Employment of wage-earners: in western Germany yearly averages; in eastern Germany yearly averages in 1936 and end-year figures in 1950 and 1955.

[a] Including East and West Berlin.

structure of the two parts is much more similar than it had been before the war. In 1936 western Germany had had a much greater proportion of its labour in the basic industries, a somewhat higher proportion in the metal-using industries, and a considerably smaller proportion in light industries than eastern Germany. By 1955 in both east and west about 27 or 28 per cent of the total labour force was employed in basic industries. The share of metal-using industries increased to more than one-third on both sides, but the pre-war ratio did not change. The high pre-war share of the consumer-goods industries in eastern Germany was sharply reduced to the west German ratio of 29 per cent, and the small sector of food industries shows a constant share in eastern Germany and a falling share in western Germany. In both areas almost two-thirds of the industrial labour force are by now employed in the basic and metal-using industries and little more than one-third in the consumer-goods and food industries.

From what has been said it should be clear that the structural changes which led to the present-day similarity in industrial structure have occurred in both areas. They took place partly in response to general factors typical for the post-war period and common to the two regions; but they were partly the result of special circumstances and policies. Thus, the great expansion of the metal-using industries was induced partly by the pressing domestic needs of reconstruction and re-equipment, partly by the opportunities (or in the case of eastern Germany —obligations) of selling just these types of goods in foreign markets, partly by the fact that the pattern of consumption had also turned to consumer durables produced by the engineering industries. The relative decline of the light industries may similarly be connected with the changed level and pattern of consumer demand.

But in eastern Germany two other interrelated sets of factors came into play: a deliberate policy (common to eastern countries) of developing even in adverse circumstances a substantial basic and heavy industry, and secondly, a policy of trading mainly with eastern countries whose marginal foreign trade demands were concentrated on basic materials and investment goods. Their tight balance-of-payments

position and lack of reserves did not permit imports of consumer goods or import surpluses to be paid for in foreign exchange. Eastern Germany as one of them was thus driven to a foreign trade structure and a degree of self-sufficiency which was ill suited to its highly specialized productive structure.

Western Germany was not subject to these policy constraints, and having rising exports and comfortable export surpluses could freely buy raw materials and basic materials in foreign markets. If eastern policy goals should change towards a greater supply of consumer goods, and hence a more intensive exchange of consumer goods across national boundaries, eastern Germany might usefully allow its employment structure to return towards greater specialization in the light industries.

Changes in the Structure of Output

Employment data are but crude indicators of industrial changes. Units of labour are not homogeneous; the skill composition, the age structure, the proportion of male to female labour, the length of the working week, may be different in the two areas or may have changed over time. Such changes may have made labour either more or less efficient. More important still, the contribution of capital, fixed as well as working capital, may have altered, management may have become more or less efficient, or economies or diseconomies of scale may have accrued. All these factors could make output in the various branches or sectors of industry move very differently from employment. It is essential, therefore, to examine the output data which statistics for eastern and western Germany provide.

Comparability over time and between the two regions is impaired by the fact that eastern Germany has no production index and that the gross production data for industrial branches are given in accounting prices. These accounting prices were fixed for a large, but still very limited, number of products and are each taken to be representative of a number of similar or related products. A change of production composition within a group, design or quality changes, or the introduction of new products, must therefore present difficult statistical problems. The accounting prices chosen have some relation to the level of producers' prices [26] in 1944 after taking into account some changes introduced in 1947/48, but what the relation is in detail has never been revealed. Some light can be thrown on the deviations between gross production figures calculated at market prices and at accounting prices by comparing the east German estimates of gross production in 1936 with the turnover figures which are available for that year.

TABLE 14

Eastern German industrial production in 1936

Millions of RM and DM

Item	Turnover [a]	Gross production [b]	Gross production (turnover = 100)
Energy	604	530	88
Mining	712	976	137
Metallurgy	660	994	151
Chemicals	1 372	2 231	163
Building materials	384	1 030	268
Basic materials	3 732	5 761	154
Engineering	3 514	3 674	105
Electrical engineering	514	779	152
Precision instruments and optics	157	259	165
Metal-using industries	4 185	4 712	113
Wood processing	556	683	123
Textiles	2 310	2 875	124
Paper and printing	960	1 241	129
Other consumer goods	1 280	1 433	112
Light industries	5 106	6 232	122
Food industries	2 368	4 402	186
Total	15 391	21 107	137

Sources : **Turnover :** Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1950; **Gross production :** *Statistisches Jahrbuch* [E.G.], 1955.

[a] In 1936 prices.

[b] In 1950 conventional prices.

It will be noted that gross production at (post-war) accounting prices exceeds aggregate turnover at (1936) market prices by only 37 per cent. This would be significantly below the actual price level of 1950, but, if the figure is accepted as an average, it is also disturbing to find extraordinarily wide variations from it: food industries, for instance, are 86 per cent higher and light industries only 22 per cent higher, which can hardly correspond to reality.[27]

The method of evaluating gross production of industries at accounting prices distorts intertemporal

[26] See *Statistisches Jahrbuch* [E.G.], 1955, p. 120.

[27] From a purely statistical point of view, the practice of employing accounting prices is unsatisfactory and can obviously not be used for planning purposes.

TABLE 15

Employment and production by branches of industry [a]

Percentages

Item	1936				1950				1955			
	Employment		Production		Employment		Production		Employment		Production	
	E.G.	W.G.	E.G.	W.G.	E.G.	W.G.	E.G.	W.G.	E.G.	W.G.	E.G.	W.G.
Energy	2.3	2.4	3.9	3.7	2.2	2.8	2.3	2.7	2.3	2.1	1.6	2.6
Mining	4.7	8.4	4.6	6.4	7.4	11.3	7.1	5.3	7.9	9.2	5.4	4.6
Metallurgy	1.9	5.0	4.3	8.2	3.0	5.3	3.0	8.4	3.0	5.2	3.8	10.6
Chemicals	5.8	5.5	8.9	8.8	8.7	7.4	17.7	11.0	8.9	6.9	17.9	11.2
Building materials	5.1	5.6	2.5	2.9	6.1	3.9	4.1	2.6	5.8	3.6	3.4	2.8
Basic materials	19.8	26.9	24.2	30.0	27.4	30.7	34.2	30.0	27.9	27.1	32.2	31.8
Engineering	25.9	27.0	22.8	24.2	23.7	24.8	16.6	18.7	24.1	27.7	18.3	24.0
Electrical engineering	3.9	5.0	3.3	4.2	6.4	6.3	5.3	4.6	7.5	8.2	6.8	6.6
Precision instruments and optics	1.5	1.5	1.0	0.9	3.2	1.6	2.1	0.8	3.3	2.0	2.1	1.0
Metal-using industries	31.3	33.6	27.2	29.3	33.3	32.7	24.0	24.1	35.0	37.9	27.2	31.6
Wood processing	5.2	5.0	3.6	3.4	6.4	5.1	4.9	3.6	5.2	4.3	4.1	3.2
Textiles	17.7	11.5	15.0	10.5	14.4	10.5	11.9	11.7	13.5	9.0	11.2	7.6
Paper and printing	6.6	5.1	6.2	4.3	4.8	4.4	4.6	4.4	3.7	4.5	2.9	4.2
Other consumer goods	10.9	9.0	8.3	6.9	6.1	9.7	5.6	8.2	6.4	10.8	5.4	7.3
Light industries	40.3	30.6	33.2	25.2	31.8	29.7	27.0	27.9	28.8	28.7	23.7	22.3
Food industries	8.6	8.9	15.4	15.5	7.5	6.9	14.8	18.0	8.3	6.3	16.9	14.3
Total	100	100	100	100	100	100	100	100	100	100	100	100

Sources: 1936: Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956. 1950 and 1955: eastern Germany: *Statistisches Jahrbuch* [E.G.], 1955; western Germany: *Statistisches Jahrbuch* [W.G.], 1953 and 1956; West Berlin: *Berliner Statistik*, Sonderhefte.

NOTE. — **Employment of wage-earners**: in western Germany, yearly averages; in eastern Germany, yearly averages in 1936 and end-year figures in 1950 and 1955. **Production**: in western Germany, turnover at current prices; in eastern Germany, turnover at current prices in 1936; 1950 accounting prices in 1950 and 1955. Industries are grouped according to the eastern German classification.

[a] Including East and West Berlin.

comparisons of pre-war and post-war outputs [28] more than the relative distribution of output among industries. In order to have at least one general comparison of the changes in the composition of industrial output in eastern and western Germany, one may risk setting the turnover figures of western Germany against the gross production data of eastern Germany and to relate both to the employment data. Then, changing shares in the production of a few basic commodities will be examined. Finally, industrial developments in western and in eastern Germany will be considered separately.

[28] As an example, the east German gross production index for the branch " Leather, shoes, furs " in 1955 stood at 175.3 (1936 = 100), while the quantity indices of output (in tons) were for sole leather 68.3, for upper leather 29.7 and for shoes (in pairs) 105.7.

A glance at Table 15, comparing the imperfectly matching data for gross production and turnover, shows a surprising consistency of employment and output data for the main sectors. The distributional changes in output have been in the same direction, though slightly damped, as the changes in employment, and the differences in employment and output distributions within western Germany are similar to those within eastern Germany. Thus, the investment and consumer-goods industries of both parts have a greater share in employment than in output, while the basic industries and, in a very pronounced way, the food industries have a greater share in output than in employment. These differences hold good for the pre-war as well as the post-war period. This does not, however, apply to all the constituent sub-groups; and

TABLE 16

Production of basic commodities

Commodity	Unit	Production in eastern Germany in 1955			Eastern German percentage share in combined total [a]		Production in western Germany in 1955		
		Physical units	Index numbers				Physical units	Index numbers	
			1936=100	1943=100	1936	1955		1936=100	1943=100
Energy									
Electric power	Million mWh	28.7	205	107	35	27	75.8 [b]	296 [b]	178 [b]
Gas	Billion cu.m.	2.5	262	176	6	11	20.9 [b]	135 [b]	100 [b]
Fuels									
Hard coal	Million tons	2.7	76	93	3	2	130.7	112	95
Brown coal		200.6	199	122	64	69	90.4	160	111
Brown-coal briquettes		51.0	217	116	67	76	16.4	140	108
Motor fuels		1.6	304	..	58	20	6.1	304	..
Crude oil		—	—	—	0	0	3.1	707	344
Mining									
Iron ore		1.7	410	237	5	9	15.7	219	108
Copper ore		1.5	119	131	100	(95 [c])	..	..	..
Pyrites	Thousand tons	143	—	—	0	19	614	215	52
Potash salt	Million tons	1.5	163	126	59	43	2.0	301	235
Metallurgy									
Pig iron		1.5	752	633	1	8	16.5	131	125
Crude steel		2.5	209	165	8	11	20.8	142	136
Rolled steel		1.9	212	175	8	12	14.2	136	135
Aluminium	Thousand tons	26	53	27	50	16	137	285	127
Non-ferrous rolled products		84	44	37	28	11	705	143	123
Castings	Million tons	0.84	130	132	20	19	3.63	147	159
Chemicals									
Sulphuric acid (SO_3)	Thousand tons	483	160	..	22	21	1861	176	..
Calcium carbide		813	289	139	30	50	823	172	120
Calcined soda (Na_2CO_3)		459	121	97	47	32	983	231	170
Caustic soda (NaOH)		257	207	132	47	32	556	403	256
Nitrogenous fertilizers (N)		293	133 [d]	..	49 [d]	28	763	318	..
Phosphorous fertilizers (P_2O_5)		85	266	..	8	13	525	149	..
Synthetic rubber		71	1 494	103	83	..	..	..	..
Cellulose		303	148	..	29	30	714	139	..
Building materials									
Cement	Million tons	3.0	176	..	17	14	18.8	220	..
Quick lime		2.5	250	192	18	25	7.7	167	138
Bricks	Billions	2.0	54	..	..	25	5.9	57 [e]	..
Tiles		0.19	61	136	23	16	1.02	98	212
Window glass	Million sq.m.	14.3	663	386	10	29	35.1	176	104

Sources: Statistisches Jahrbuch, 1955 [E.G.], *Statistisches Jahrbuch* [W.G.], 1953 and 1956.

[a] The present territory of eastern and western Germany taken together: the western German share is, of course, equal to 100 *minus* the eastern German share.

[b] Excluding west Berlin.

[c] Copper output of domestic ores.

[d] According to official east German data: other sources give higher production for 1936.

[e] Covers only one kind of brick, corresponding to half of total brick production.

the similarity may therefore be the result of compensating errors.

For the major sectors the results seem plausible. In 1955, in both eastern and western Germany, the food industries account for one-sixth to one-seventh of total output, the consumer-goods industries for less than a quarter, the metal-using industries for around three-tenths, and the basis industries for slightly more. The pattern was very different in 1936: the much greater weight of output of basic industries in pre-war western Germany, and the greater relative importance of consumer-goods industries in eastern Germany, are shown very clearly in the tables and supported by the employment figures.

In the absence of comparable production indices for eastern Germany,[29] a detailed comparison of production changes between 1936 and 1955 can be made only for a limited number of basic commodities for which production data in physical units are available. The commodities selected for comparison constitute an unknown part of the total output of the basic materials sector but give at least some indication of the developments within this important segment of the economy. Table 16 shows that, compared with the pre-war situation, eastern Germany's share in the joint output of the two territories improved significantly in brown coal and brown-coal briquettes, in iron ore, lime and carbide, and in window glass. It worsened for motor fuels and aluminium, in both of which dismantling and power shortage played a part. It also declined in cement and various chemicals.

These changes in the share of output are, of course, due to differential rates of growth in the two parts. Some of the very high indices of growth for eastern Germany are merely an expression of the small pre-war level of output (e.g., pig iron); but the doubling of the output of brown coal and steel and the substantial increase in the production of cement and sulphuric acid are significant achievements.

A comparison of the western German index of production, weighted by 1950 net values of output, with east German indices of gross production, weighted by 1950 gross output values, is statistically hazardous. The fact that gross production data are given in accounting prices introduces a further complication. Finally, it is not easy to choose the right year for comparison, because of the different phasing of the recovery from the post-war trough. On the whole, it seemed fair to take as a basis of comparison the year 1951, when eastern Germany had recovered the pre-war level of real national income, while western Germany had achieved this a year earlier. The results are given in Table 17 and require hardly any comments. The rate of growth for industry as a whole and for the major sectors seems to have been of the same order of magnitude in eastern and western Germany. If the indices of total production are set against the indices of total industrial employment, the increase in productivity seems to have been slightly higher in eastern than in western Germany.

TABLE 17

Indices of industrial production in 1955 [a]

1951 = 100

Item	Eastern Germany [b]	Western Germany [c]
Energy	136.7	145.3
Mining	133.6	121.5
Metallurgy	179.8	153.2
Chemicals	156.8	156.7
Building industry	148.5	145.4
Basic materials	151.9	144.8
Engineering	171.2	166.2
Electrical engineering	181.2	179.6
Precision instruments and optics	159.7	170.8
Metal-using industries	172.5	167.0
Wood processing	141.6	119.6
Textiles	140.8	133.6
Clothing	156.0	164.9
Leather, shoes and furs	144.4	156.3
Cellulose and paper	123.5	139.9
Printing	103.3	148.7
Light industries	139.5	139.1
Food industries	157.6	145.9
TOTAL	154.6	150.4
Total excluding food industries	154.0	151.3
Employment	115.4 [d]	123.3 [d]

Sources: Western Germany: *Statistisches Jahrbuch* [W.G.], 1956; Eastern Germany: *Statistisches Jahrbuch* [E.G.], 1955.

NOTE. — Western German figures are adjusted to the eastern German classification of branches of industry.

[a] The 1950-based new index of production for western Germany; gross production at 1950 accounting prices for eastern Germany.

[b] Including East Berlin.

[c] Excluding West Berlin.

[d] Yearly averages.

Structural Changes in West German Industry

For western Germany the employment and turnover data can be supplemented by indices of the volume of output. As the post-war development of west German industry has been described in various ECE SURVEYS and *Bulletins*, and in much detail in west German economic literature, it will suffice to concentrate attention on the structural changes which emerge by comparing a recent post-war year with a pre-war year.

The major changes are brought out graphically by plotting the percentage deviations of the output of individual industries from the over-all rise in industrial production. The height of each bar indicates the weight the industry concerned has in the production index and hence its relative importance in total industrial output in 1936. The shading of the bars classifies the industries into four major sectors.

The total index based on 1936 stood in 1955 at 198; that is to say, industrial production was about twice

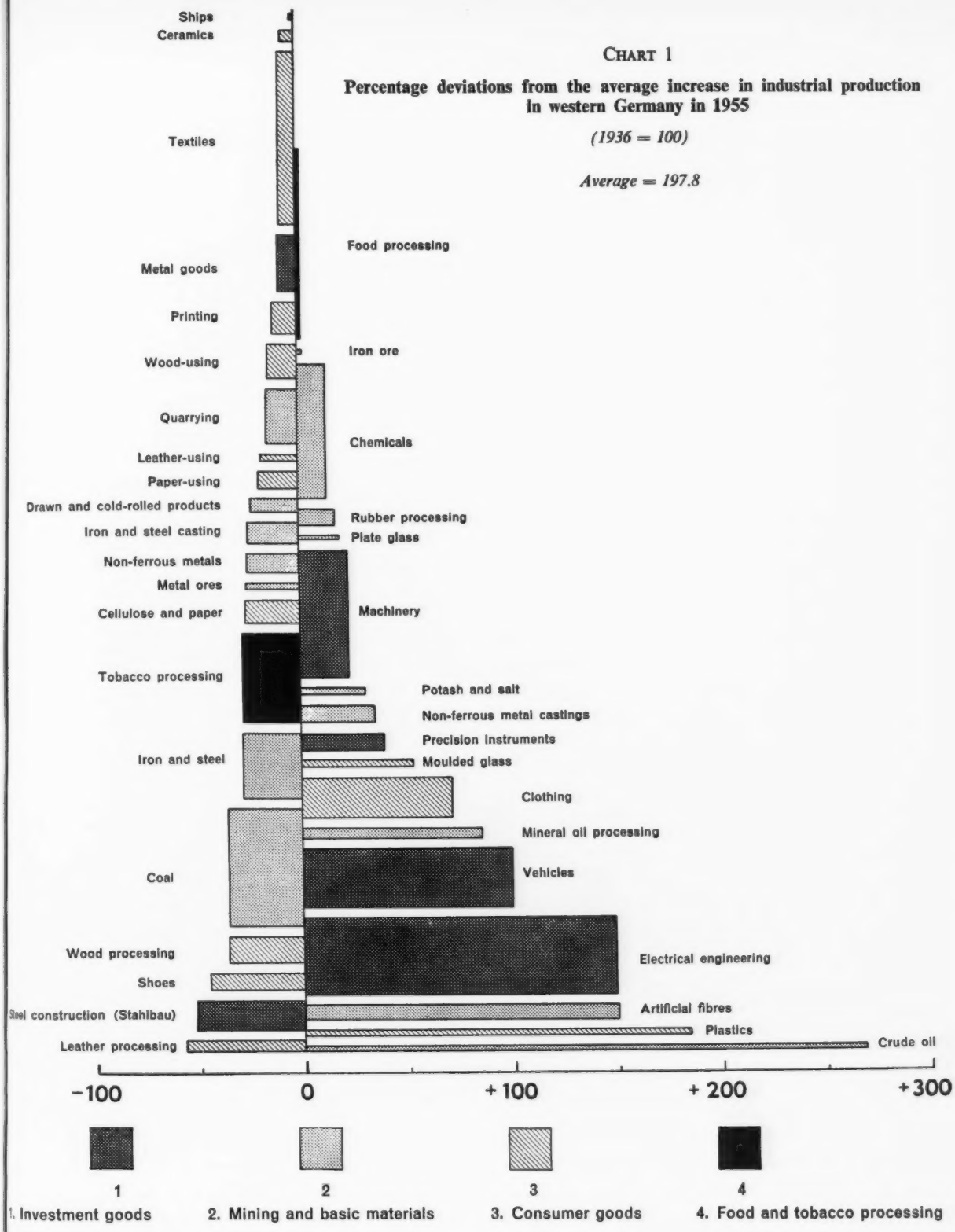
[29] Production indices for western Germany are separately analysed below.

CHART 1

Percentage deviations from the average increase in industrial production in western Germany in 1955

(1936 = 100)

Average = 197.8



Source : Statistisches Jahrbuch [W.G.], 1956.

NOTE. — The height of each block is proportionate to the share of each branch in total industrial production in 1936.

as large in 1955 as in 1936. The index does not include industrial output in west Berlin, where industrial recovery has been slower than in western Germany proper. Its inclusion would, therefore, have depressed the index slightly.

From the shading of the graph it is obvious that the investment goods and basic industries have had, on the whole, more-than-average increases in production. On the other hand, some small metallurgical industries, steel construction (Stahlbau) and metal goods have risen less than the average, and coal mining, in particular, much less. The consumer-goods industries show, broadly speaking, a less-than-average change of output. The exceptions to the rule have obvious explanations. The clothing industry was largely concentrated in Berlin before the war, and the rapid expansion of this mobile and market-oriented industry in western Germany was to be expected. The very rapid growth of the plastics industry may have something to do with the cutting-off of eastern German sources, but as a relatively new industry it has made great strides in all industrially developed countries. The food-processing industry moved proportionately to the general rise in industrial output, but the tobacco industry is on the left side of the mid-line, indicating a relatively retarded growth.

It emerges clearly from the chart that the investment-goods industries, heavily weighted in the index, rose disproportionately. The output of electrical engineering, before the war heavily concentrated in Berlin, rose one and a half times as fast as the general index, and vehicle output 50 per cent faster. Machinery and precision work show also a high rate of expansion. Some adjustment to deficiencies resulting from the economic division of Germany is undoubtedly reflected in these figures, but it is overlaid by the general expansionist tendency of the investment-goods industries to meet the needs of domestic reconstruction and the brisk demands of foreign markets.

Similar considerations hold good for most of the basic industries showing above-average increases of production, such as chemicals, rubber-processing and oil refining, while the expansion of crude oil production reflects the rapid development of western German resources from relatively small beginnings in 1936.

On the left side of the mid-line we find among the industries with less-than-average expansion, a wide range of consumer-goods industries, but also some investment-goods industries. But even the largest negative figures (50 per cent) on the left of the mid-line still imply a substantial increase of output compared with pre-war. Throughout the range of industries depicted in the chart, adaptation has not involved an absolute shrinkage of any industry group but merely a slower rate of growth. It is the remarkable over-all expansion of the west German economy that confounded earlier pessimistic views about the consequences of the economic division of Germany.

Industrial Policy in Eastern Germany

The specific problems of adaptation and economic reorganization in eastern Germany may be grouped under three headings: the effort to develop internal raw material resources after the loss of west German supplies and to build up heavy industries, secondly, the re-deployment of the engineering industries to meet the new policy goals and the demands of the eastern trading partners and, thirdly, the problem of the traditional export industries.

Broadening the Base of Heavy Industry

Eastern Germany followed the general policy of eastern European countries according to which each country should cover by domestic production a growing share of its requirements of metals, even where natural endowments are poor.[30] The great and rather costly efforts of eastern Germany to follow this line are reflected in the statistics of iron ore and metal output. From 1936 to 1955 there was a four-fold increase in iron ore production (gross, the Fe content decreased from 36 per cent to 28 per cent), a seven-fold increase in pig iron production, and a doubling of crude and rolled steel output. Nevertheless, the targets of the five-year plan were not reached, and with rising levels of industrial output the degree of self-sufficiency in metals was not much improved.[31] Moreover, instead of concentrating investments on the more advanced stages of processing (rolling-mills and steel furnaces), the most conspicuous expansion was in the earlier stages, contrary to the usual developments in industrial countries which are poor in iron ore and coking fines. As a result there is a serious bottleneck in rolling capacity.[32] The location of the new metallurgical centres was largely determined by the expected supply flows—i.e., Soviet ore

[30] The Five-year Plan Law provided for "... reconstruction and rapid expansion of metallurgy in the fields of pig iron, steel and rolled products to ensure maximum domestic supplies of metals being made available to engineering". (See *Die Wirtschaft*, 2 November 1951, p. 5).

[31] In 1955 the index of gross output of metallurgy was at 243 (1950 = 100) and that of imports of metallurgical products at 215.

[32] Especially for medium and thin sheets. The share of sheets in the total output of rolled products went down from 48 per cent in 1936 to 37 per cent in the period 1950 to 1955, while in western Germany it was somewhat above 26 per cent in 1936 and 1950, and reached about 32 per cent in 1955.

TABLE 18

Index numbers of eastern German gross industrial production according to power intensity

1951 = 100

Item	1952	1953	1954	1955	Percentage share in	
					Gross production 1955	Power consumption 1955
Total industry	116.1	130.2	143.5	154.2	100	100
Branches using more than 400 kWh per 1,000 DM gross production	114.1	127.0	138.6	150.9	34	83
of which :						
Most power-intensive products	108.1	113.3	125.3	139.0	1	25
Branches using less than 400 kWh per 1,000 DM gross production	117.2	131.9	146.2	156.6	66	17

Source : Statistische Praxis, No. 8, 1956.

and Polish coke, coming by rail and over long distances, while in the long run a location at the Baltic Sea might have been more economical.

In non-ferrous metallurgy, where eastern Germany was relatively very well endowed before the war with a high concentration in some sub-branches, production has remained below the pre-war level. The most striking fact is the shrinking of aluminium production to about half its pre-war level. The mining of non-ferrous ores has been affected by the progressive exhaustion of deposits.[33] This, together with the difficulty of obtaining external supplies, explains the decline in the output of non-ferrous rolled products, which, even in 1955, reached only half the 1936 level.

The performance of the chemical industries was very much better.[34] Here the problem was not so much that of an over-all deficit, as in ferrous metallurgy, but the desirability of expanding the output of some specific products such as sulphuric acid, phosphorous fertilizers, tyres and pharmaceutical products. The expansion in many of these products was well above the level of domestic needs and the excess found ready buyers in eastern markets. Limits to the expansion of some branches of the chemical industry were set by insufficient raw material imports from the western world and by the all-pervading power shortage. In fact, the energy problem in general, of which the power shortage has been the most acute expression, is one of the keys to the understanding of the post-war development of the east German economy.

In spite of its negligible hydro-electric resources, eastern Germany was traditionally in a relatively favourable position for power production,[35] because of its immense reserves of cheaply extracted open-cast brown coal. There was a tendency to concentrate on its territory many of the power intensive branches of the pre-war German economy, supported by the installation of highly efficient generating machinery near the coalfields in the late 1930s. This evolution was completely disrupted by the war and by dismantling. In 1946 less than half of the previously available generating capacity was left; practically all the recently constructed plants had disappeared. As a consequence, 30 per cent of the remaining equipment was more than thirty years old; another 30 per cent was twenty to thirty years old; and only 10 per cent was less than ten years old. The performance achieved with this obsolete equipment was extraordinary. Capacity utilization increased by almost 40 per cent between 1946 and 1954, and by 1955 output had doubled as compared with 1936, although capacity had increased only by 20 per cent. The very modest increase in installed capacity and the relatively small allocation of investment funds to the electricity industry have given eastern Germany much trouble.

[33] For instance, the Cu content of copper ores decreased from 2.4 per cent in 1936 to 1.5 per cent in 1955. As a result, domestic copper extraction decreased from 27,000 to about 20,000 tons, in spite of a small increase in the output of ore.

[34] This is to a large extent related to the fact that instead of being dismantled, more than half of the chemical industry was turned into SAG (Soviet companies), including Leuna, Buna, Bitterfeld.

[35] In 1936 per capita production of electric power was 866 kWh in eastern Germany, as against 631 in western Germany and about 460 in England and France. Even in 1955 per capita output in eastern Germany is slightly above that of western Germany.

But it is worth recording that eastern Germany had no factory for large-scale production of generating machinery (the only one in Berlin was heavily damaged during the war) and that, at least up to 1953, the quickly expanding production of generating machinery was not available for domestic investments. Installed capacity remained, therefore, at the 1946 level up to 1954 and the additions to maximum simultaneous load were almost exclusively the result of repairs and modernization. Electricity supply, instead of being a production with relatively high capacity and decreasing current costs, became a high cost industry because of insufficient capital expenditure. Although the last ounce was squeezed out of the generating plants, the shortage of power was, and remains, the most important bottleneck for east German industry. Considerable efforts were made to spread the load, and although actual power cuts never exceeded 2 per cent of total consumption, they disrupted the flow of production and the capacity shortages remained an obstacle to the expansion of power-intensive branches of industry. This is shown by the fact that the five-year plan for the most power-intensive products was not fulfilled and that these branches grew much less in recent years than the rest of industry (see Table 18).

The power shortage also tended to hold up the industrial uses of electric power in other branches of the economy. It is true that even in 1955 power consumption per head of employed was slightly higher in eastern than in western Germany, but this was due to the still relatively high share of power-intensive branches in total industrial output (see Table 19). On the other hand, per capita power consumption in metal-using industries was significantly lower in eastern Germany, and for light and food industries it was only two-thirds of that of western Germany. The share of industry as a whole in power consumption was also significantly higher in eastern (78 per cent in 1955) than in western Germany (70 per cent in 1955).

The energy problem of eastern Germany cannot be reduced to a question of power-generating capacity. Brown coal is the main domestic source of energy, and power generation already absorbs 34 per cent of the total output of coal, as against 17 per cent in western Germany (both figures in hard-coal equivalents). The fast rise in brown-coal production since 1950 (see Table 16) made it possible to supply electricity works as well as other industrial coal users with increased quantities. The planned rate of expansion for coal for the next five years is lower (about 5 per cent per annum cumulatively) than it was during the last five years, but electric power production will be stepped up much more and is likely, even after allowances for economies in coal consumption, to absorb an increased share of the total coal output. The need to import coal, especially hard coal, and oil would seem to remain as urgent as before.

TABLE 19

Energy consumption in industry in 1955

Thousands of kWh

Industry	Eastern Germany [a]		Western Germany [b]	
	Total consumption	Consumption per employed person	Total consumption	Consumption per employed person
Basic industries	17 375	23.8	37 531	19.7
of which: Chemicals	9 750	42.0	15 262	32.4
Mining	4 025	19.5	8 401	13.1
Metal-using industries	1 650	1.8	5 426	2.4
Light and food industries	2 480	2.5	8 467	3.6
Total	21 505	8.2	51 424	7.8
			51 872 [c]	7.6 [c]

Sources: Eastern Germany, *Statistische Praxis*, No. 8, 1955 ; western Germany, *Statistisches Jahrbuch*, 1956 [W.G.].

a Including East Berlin.

b Excluding West Berlin.

c Including West Berlin.

The extent to which efforts were concentrated on the development of basic materials is also shown in the distribution of investment.

Of the total quinquennial investment of about DM 20 billion, just under one-half went into industry, and more than three-fifths of this was invested in the basic industries. No doubt mining took a fair share

Distribution of Investment [a] in Eastern Germany, 1951 to 1955

	Per cent
Total industry	48.5
of which:	
Centrally managed	43.9
of which:	
Basic materials	*29.9*
Metal-using industries	*6.4*
Light industries	*2.8*
Food industries	*4.8*
Agriculture	9.5
Trade	1.2
Transport	13.1
Health	1.9
Education	3.8
Housing	13.2
Others	8.8
Total	100.0

Source : Statistische Praxis, No. 6, 1956.

a Excluding a small amount of private investment.

to double its output, but the lion's share seems to have gone to the development of new capacity in other basic industries. Against the gains from this heavy investment in basic industries must be set the losses which result from the corresponding under-investment in some of the light engineering industries, and still more in the consumer-goods industries, where much of the equipment is over age and hampers their production and competitiveness.

Heavy versus Light Engineering

The pre-war structure of the east German engineering industry can be summed up by saying that the metal-intensive sectors of steel construction (Stahlbau), ball bearings, rolling stock, ships, and equipment for metallurgy accounted for less than 6 per cent of the total turnover in 1936. Eastern Germany had a disproportionate share (see above) in the production of textile and office machinery, sewing, printing, paper-processing machines, aircraft and wireless sets, and was relatively strong in the production of cycles, vehicles and optical instruments. The change from a peace to a war economy led, however, to much greater changes for east German engineering than for its west German counterpart. Although the total engineering output of eastern Germany remained roughly the same between 1938 and 1944, the place of machinery for the light industries was taken by ball bearings (160 per cent increase), power engines (300 per cent), locomotives (700 per cent), not to mention the production of armaments proper. Naturally, part of this conversion was a reversible process, but it can be said that at the end of the war the objective conditions for re-starting the traditional branches of engineering were much less favourable than for continuing a pattern of engineering output more like that which had developed during the war.

In accordance with domestic investment needs, but mainly under the impact of the demand from the eastern markets and of reparation deliveries, the post-war development was directed towards an expansion of heavy engineering facilities and the relatively scarce means of investment were allocated accordingly: of the seventeen engineering enterprises whose reconstruction and extension were included in the five-year plan, four were destined to make machinery for power production, three to produce mining and metallurgical equipment, six to produce heavy machine tools, and four to produce steel construction.[36]

[36] Minister H. Rau said in a speech introducing the five-year plan: " Heavy engineering is the very heart of our economic development in the coming years." (See *Die Wirtschaft*, 2 November 1951.)

A detailed break-down of engineering output is not available, but the following table illustrates some of the shifts towards the heavy side which have taken place.

Shares of Selected Products in Total Output[a] of Engineering in eastern Germany

Percentages

	1936	*1950*	*1955*
Equipment for metallurgy and mining .	0.1	4.5	3.2
Machine tools and casting equipment .	1.0	4.9	3.7
Equipment for light industries	1.7	0.9	0.6
Textile machines	3.4	0.9	1.0

Sources : 1936: Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956; 1950 and 1955: *Statistisches Jahrbuch* [E.G.], 1955.

[a] Turnover in 1936 and gross production in 1950 and 1955.

The development of shipbuilding, which was practically non-existent in the region before the war, is another illustration; virtually the whole output is being exported.[37] In steel construction (a " deficit " industry) east German output before the war amounted to 16 per cent of the combined total value for the two areas; in 1955 the share had risen to 28 per cent of the combined tonnage. Similarly, eastern Germany's share in the production of equipment for rolling-mills, which was 7 per cent of the combined total (in value) before the war, rose to 21 per cent (in tons) in 1955, when west German output was almost three times as high as in 1936. Output of machine tools, which has perhaps doubled in eastern Germany since before the war, contains now a higher share of heavy machine tools of new types.[38] The construction of railway rolling stock, much affected by reparation demand, is another example of the general tendency. East German output of locomotives in 1936 accounted for 28 per cent of the combined production value of the two regions. In 1950, eastern Germany produced 391 locomotives (steam and electric), western Germany, where output was significantly below the pre-war level—only 132. In 1955 output in eastern Germany was only 330 units, with a bigger share of electric locomotives, as against 583 in western Germany. The development was similar for goods wagons. In 1936, eastern Germany had produced less than 745 units, as against 2,766 in western Germany. In 1950, eastern Germany's output had risen sharply (reparations) to about 5,000 units and western Germany's to about 2,500. In 1955 the figures were 2,400 and 9,060 respectively, corresponding roughly to the pre-war proportions between east and west.

[37] In the five years 1951–1955, 324,000 GRT ships were produced, which is still a small fraction of the rapidly expanding west German output (more than 3 million GRT for the same period).

[38] This, incidentally, gave an upward bias to gross production figures in this field, owing to the higher prices of new types.

TABLE 20

Production of vehicles in Germany

Thousands

Item	1936		1950		1955	
	Eastern Germany	Western Germany	Eastern Germany	Western Germany	Eastern Germany	Western Germany
Motor-cars	60.8	181.5	7.2	216.1	22.2	705.4
Lorries	19.1	43.7	1.0	85.0	14.2	197.0
Motor-cycles	54.2	93.6	9.6	168.9	88.2 [a]	1 092.4 [a]
Bicycles	398.6	862.9	338.3	1 318.8	723.8	1 054.0

Sources : Eastern Germany, *Statistisches Jahrbuch* [E.G.], 1955 ; western Germany, 1936, Professor B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956; 1950 and 1955 : *Statistisches Jahrbuch* [W.G.], 1953 and 1956.

[a] Including the smallest types.

By way of contrast, the vehicle industry, which was important in eastern Germany before the war and would have needed a bold investment programme to maintain its position in the world market,[39] fell back absolutely, and still more in relation to that of western Germany, as Table 20 shows.

Production of agricultural machinery has presented another special problem of adaptation. About one-quarter of the combined production of the two areas was in eastern Germany before the war, but eastern Germany had only one factory for large-scale production. Other production consisted mainly of tools and implements, whereas the output of tractors and harvesting machinery was concentrated in western Germany. The agricultural policy followed after the war called for just those types of machine which were traditionally produced in western Germany; nor was there any demand for the traditional east German production in the other eastern countries.

Although the output of agricultural machinery expanded very quickly after the war, the urgency of current production tasks prevented east German industry from developing new models of high reliability. There has been some improvement since 1954, but the technical level of the models produced is criticized in eastern Germany as being still very far behind international standards.

The shift towards heavy engineering in eastern Germany is the result of a deliberate policy embodied in the five-year plan. It is only partly designed to make good deficiencies in the structure of industry in response to the economic split of Germany and is very much bound up with opportunities in export markets. The engineering industry exports a high percentage of its output to meet the demands of the rapidly industrializing eastern countries, as well as some of the under-developed countries overseas. As an area which was already highly industrialized before the war, eastern Germany is probably better placed to shift to heavy types of engineering than many other less developed countries, because the skill and technique are available. But it lacks, of course, the raw material basis and this makes for high-cost production in some lines and, under existing balance-of-payments strains, for uncertainty in supplies. If opportunities for greater international specialization should develop in the main eastern markets, eastern Germany would probably turn for economic reasons towards engineering products with a high ratio of value added and away from products with a high raw material content.

The Traditional Export Industries

Not all the traditional export industries have suffered equally from under-investment and changing market structure. The export branches in engineering were generally badly hit not only because of lack of investments in the form of equipment, but also because they could not renew their models and designs and became less competitive on the western market. This was not the case, however, for optical instruments and cameras: the demand from eastern markets was very strong (as evidenced by the taking over of the Zeiss plant by Soviet management) and technological developments in this branch required only relatively small capital outlays. The same was true for precision instruments, watches, and numerous other products where traditional skill was the predominant factor.

[39] Before the war, roughly one-third of the motor vehicles were produced in eastern Germany, but only 14 per cent of the necessary parts (see *Wirtschaftswissenschaft*, No. 4, 1956). There was, for instance, practically no production of tyres.

In the light industries the situation was much more difficult, because the shortage of raw materials handicapped the extension and qualitative improvement of production. The most striking case is that of woollen textiles (a branch strongly oriented towards exports before the war), which now gets only about one-half of its already low pre-war wool imports and has been largely converted to the processing of staple fibres produced out of domestic raw materials. In fact, eastern Germany has to import the small amounts of high-quality woollen cloth which are available for distribution. Supply difficulties also affect the knitwear, lace and hosiery industry, but there have been some improvements in the last two years. The ready-made clothing industry suffered severely from the loss of trade. Berlin, its main centre, was cut off from its western markets and had no outlets on the eastern markets, though here also there has been a slight revival since 1954. Both demand changes, and raw material shortages have hit the wood-processing industries, quantitatively and qualitatively.

The recent introduction of loan-financed small investments for the development of export production and the decentralization of foreign trade organization, in particular for small export items, is likely to help some of these industries. The effort to increase the supply of consumer goods in the eastern countries and the increase of east–west trade may give a further stimulus to those traditional industries which have been able to preserve a significant part of their pre-war capacities and skills. The reconstruction of some other branches (such as woollen textiles) can, however, hardly be expected.

6. Reintegration into World Trade

The Pre-war Pattern of Trade

Trade between eastern and western Germany, as well as their trade with the rest of the world, came almost to a standstill in the immediate post-war period, and the changes that have taken place since the revival of trading relations have been greater than those in any other field of activity. The shifts in trading partners and in commodity composition have been more striking for eastern Germany and have presented difficult problems of adaptation, but they have also affected western Germany.

It is not easy to show in detail the differences in the pre-war and the post-war flows of trade, partly because estimates of the former trade of the two parts of Germany with each other and with other parts of pre-war Germany are, at best, very rough approximations, and so is the allocation of the foreign trade proper of pre-war Germany to the two regions. As the estimates used here have been described in an earlier issue of this *Bulletin*,[40] it is only necessary now to summarize the conclusions.

Western and eastern Germany differed greatly before the war in their degree of interdependence and in their dependence on the countries which, after the war, were to be their principal trading partners. The considerable difference in their size meant, of course, that their trade with each other was relatively much more important to eastern than to western Germany. This trade, as might be expected, also formed a much bigger part of eastern Germany's total trade than of western Germany's—something more than one-half in the one case against something more than one-third in the other, as can be seen from the table below.

Inter-regional and Foreign Trade in 1936

Billions of Reichsmark in 1936 prices

Area of origin and destination	*Western Germany*		*Eastern Germany*	
	Imports	Exports	Imports	Exports
Eastern Germany . . .	2.7	2.7	—	—
Western Germany . . .	—	—	2.7	2.7
Berlin	0.8	0.8	0.7	0.9
Other parts of pre-war Germany	0.6	0.7	0.7	0,6
Foreign countries . . .	2.7	3.2	0.7	1.1
TOTAL	6.8	7.4	4.8	5.3

Source : Economic Bulletin for Europe, Vol. 1, No. 3.

The difference in the degree of dependence of the two areas on trade with each other and on foreign trade can also be explained in terms of their raw materials basis and their industrial structure. On the import side, eastern Germany derived most of its heavy industrial raw materials and semi-finished products from western Germany, but foreign sources were important for the raw materials of its light industry, such as textile fibres and leather. The engineering industry was largely based on imports of semi-finished products from western Germany and it frequently carried out only the final stages of production as, for instance, the assembly of motor-cars. On the export side, it was the very high degree of specialization which accounted for the large share of

[40] Data on the break-down of trade between inter-regional and foreign trade in 1936 are based on the estimates presented in the article " Pre-war Regional Interdependence and Post-war Interzonal Trade in Germany ", published in the *Economic Bulletin for Europe*, 1949, Vol. 1, No. 3. For further details, see the article itself.

inter-regional trade in eastern Germany's total trade. In engineering, the sectors in which eastern Germany was competitive were those with a comparatively high labour intensity in which wage differentials played an important role. Thus, as already pointed out in section 3, certain types of light machinery like textile and office machinery and also the lighter types of vehicles were heavily concentrated in eastern Germany.

By contrast, western Germany had the fundamental advantages of possessing the basic raw materials for heavy industry, notably hard coal and coke, and all stages of iron and steel production, and its highly diversified industrial structure made it largely independent of eastern Germany for raw materials and other industrial goods except for brown coal, potash and specialized products of the engineering and textile industries. The situation was, however, very different with respect to agricultural products: almost 30 per cent of the total imports of food and feedingstuffs into western Germany came from eastern Germany, and about 17 per cent from other parts of pre-war Germany.

No statistical data are available on the geographic pattern of the pre-war foreign trade of the two parts of the country taken separately, and nothing precise can be said, in particular on the distribution of their trade between the eastern and the western trading regions. One may, however, judge from its economic structure that eastern Germany's trade with the western trading region must have made up a more than proportionate part of its total trade. It imported only relatively small amounts of grain;[40a] its raw material imports for light industries, particularly fibres, were largely derived from western countries; and its highly specialized exports, particularly of

[40a] Eastern Germany was, of course, a net exporter of grain (see Section 4).

TABLE 21

Geographic distribution of foreign trade

Millions of current dollars

	1936	1950		1955	
	Reich	Eastern Germany	Western Germany	Eastern Germany	Western Germany
Eastern trading region					
Exports	285	277	85	940	149
Imports	257	356	84	828	173
Turnover	542	633	169	1 768	322
Western trading region					
Exports	1 639	50	1 895	202	5 987
Imports	1 446	52	2 620	213	5 649
Turnover	3 085	102	4 515	415	11 636
Total foreign trade					
Exports	1 924	327	1 980	1 142	6 136
Imports	1 703	408	2 704	1 041	5 822
Turnover	3 627	735	4 684	2 183	11 958
Inter-regional trade					
Exports	—	79	78	136	124
Imports	—	61	81	131	138
Turnover	—	140	159	267	262
TOTAL TRADE (including inter-regional trade)					
Exports	—	406	2 058	1 278	6 260
Imports	—	469	2 785	1 173	5 960
Turnover	—	875	4 843	2 451	12 220

Sources : Reich: *International Trade Statistics*, League of Nations, 1938. Eastern Germany: *Statistisches Jahrbuch* [E.G.], 1955. Western Germany: *Statistisches Jahrbuch* [W.G.], 1953 and 1956.

NOTE. — Eastern Germany's figures are all f.o.b.: they cover only commodity trade, strictly defined (i.e., excluding commission work, re-exports, transit, etc.).

machinery, were largely geared to the requirements of highly industrialized countries. By contrast, west German grain and petroleum imports from eastern Europe constituted an important share of its total imports of those commodities from abroad and its exports, particularly of semi-finished products and machinery, are known to have had important outlets in eastern Europe.

From all this it is clear that the separation of the two regions and the change in their trading alignments was a more severe blow for eastern than for western Germany. This was so because their trade with each other was more important to eastern than to western Germany and because, for eastern as well as western Germany, trade with the western trading region greatly outweighed trade with the eastern market.

The shifts which actually occurred in the geographic distribution of trade in the post-war period are shown in Table 21. For eastern Germany the share of the eastern trading region in its total trade turnover in the years 1950 and 1955 amounted to about 72 per cent; the share of western markets rose from 12 to about 17 per cent during the period; and that of western Germany which had amounted to 16 per cent in 1950, fell to 5 per cent in 1952, but rose again to 11 per cent in 1955. In the total turnover of western Germany, the eastern trading region accounted for only 3 per cent in 1955 and eastern Germany for only about 2 per cent, revealing the overwhelming concentration of its trade on the western market.

The Volume of Inter-regional and Foreign Trade after the War

Figures for international trade at 1936 prices are available only for western Germany. Table 22 shows that western Germany's total volume of imports and of exports was, in 1950, still well below the pre-war level. By 1955, however, both exceeded their pre-war volume by more than 40 per cent. Within that total a very marked shift has occurred away from trade with eastern Germany and to foreign trade proper. Whereas both imports from and exports to foreign countries had more than doubled compared with 1936, trade with eastern Germany remained only a small fraction of pre-war trade and, furthermore, remained stationary between 1950 and 1955. Exchanges with West Berlin in 1955 were substantially higher than those with the whole of Berlin in 1936.

The situation during recent years contrasts sharply with western Germany's inability in the early post-war period to pay for even the most essential imports, such as foodstuffs and basic raw materials, with the proceeds of exports. Thus, in 1948, exports covered

TABLE 22

Foreign and inter-regional trade of western Germany

Billions of RM at 1936 prices

	1936	1950	1955
Imports			
Foreign countries	3.3 [a]	3.6	7.6
Berlin	0.8	0.6 [b]	1.8 [b]
Eastern Germany	2.7	0.2	0.2
TOTAL	6.8	4.4	9.6
Exports			
Foreign countries	3.9 [a]	3.2	8.5
Berlin	0.8	1.2 [b]	2.0 [b]
Eastern Germany	2.7	0.2	0.2
TOTAL	7.4	4.6	10.7

Sources: **1936**: *Economic Bulletin for Europe*, Vol. 1, No. 3; **1950** and **1955**: *Wirtschaft und Statistik*.

[a] Including other parts of pre-war Germany.

[b] West Berlin.

only 40 per cent of imports. The supply of such goods, without which the west German economy would not have been able to feed its increased population and get its industry started, was rendered possible through foreign aid, which was granted in increasing amounts up to 1948 and then gradually tapered off. While in 1948, aid-financed deliveries represented about three-fifths of total imports, in 1949 they amounted to about two-fifths and by 1955 they had practically disappeared.

The details of the west German export expansion and the recapture of world markets need not be examined here. Though a strong export recovery had already started earlier, it was particularly favoured by the Korean boom, during which the rapidly rising demand in foreign markets could be met more readily by the expansion of west German industrial output, since its industries had been working far below capacity and idle manpower reserves were available. In the competing industrial countries, on the other hand, particularly in the United Kingdom, full employment levels had been reached much earlier. There was further a more long-term factor which helped to make the energetic west German export drive more successful—namely, the expansion of world demand for just the type of commodities (investment goods) of which production had increased most in western Germany.

In eastern Germany, the volume of exports and consequently the ability to pay for imports was, until

the end of 1953, heavily influenced by reparations. As it is impossible to assess the value of reparations, it remains uncertain whether exports, including reparation deliveries in the early 'fifties, were lower or higher than commercial exports alone following the cessation of reparation payments after 1953.[41]

In other words, it is unknown to what extent the increase in exports which occurred between 1950 and 1955 was a genuine increase of the commodity flow or a shift from reparations to commercial exports.[42]

When reparations ceased, eastern Germany had difficulties in finding sufficient export markets for its productive capacity and for the type of goods offered. Export trade did not come up to expectations. But from the figures for 1954 and 1955 it may be estimated that the volume of trade with foreign countries in these two years was slightly above the 1936 level. The volume of trade with western Germany had, however, shrunk to less than one-tenth of its imputed pre-war value.

Over a period of years eastern Germany had only a small export surplus, which served to finance a deficit on services, and the movement of imports therefore followed that of commercial exports fairly closely.

The greatly divergent rates of expansion in the volume of trade in western and eastern Germany resulted in the striking fact that, whereas the total trade turnover of eastern Germany, including inter-regional trade, was about 70 per cent that of western Germany in 1936, this ratio has declined to only about 20 per cent in 1955. For foreign trade alone the corresponding ratios are 31 and 19 per cent.

A comparison of the share of exports in the net output of commodities in western and eastern Germany given below shows that the rate of growth of exports was faster than that of net output between 1950 and 1955 in both areas. But in relation to inter-regional and foreign trade in 1936, the share of exports is still small, especially in eastern Germany. However, any separation of formerly integrated parts is bound to reduce the density of trading flows between them and to lead to a substitution of formerly imported goods by home goods through the building-up of new capacities in the "deficit" industries. The new location and the new plant may prove as efficient as the old supplier and thus reduce the incentive to trade on strictly economic grounds. As such a substitution has happened intensively on both sides of the dividing line, there is no reason to expect that their mutual trade would return to its pre-war relationship to production even if there were much greater freedom of trade.

Ratio of Exports to Net Commodity Output [a]

1936 prices

	Eastern Germany	*Western Germany*
1936		
Total trade [b] . . .	36 [c]	28 [c]
Foreign trade [d] . .	11	13
1950		
Total trade	5	15
Foreign trade . . .	4	14
1955		
Total trade	9-10	23
Foreign trade . . .	8-9	22-23

Source: See "Sources and methods"

[a] Net commodity output at factor cost.
[b] Including deliveries in inter-regional trade.
[c] Excluding exports to Berlin.
[d] Only foreign trade proper.

It is not entirely satisfactory, on the other hand, to look only at the development of trade with foreign countries because at least some of the expansion must be in substitution for inter-regional trade. For foreign trade proper the share of the volume of exports in commodity output is considerably higher for western Germany now than it was in 1936, but for eastern Germany it is still below the pre-war level, even if allowance is made for the fact that the years 1954 and 1955 were years of transition from reparations to commercial exports.

Changes in the Commodity Composition of Trade

The structural changes in the west and east German economies as well as the geographic reorientation of trade (particularly in the case of eastern Germany) have involved significant shifts in the commodity composition of their trade. A comparison with pre-war can be made only for foreign trade proper at current values and for large commodity groups for both areas,[44] but the percentage shares in total imports and exports give some indication of the shifts which have occurred. These are shown in Table 23, and

[41] In its first version, the 1954 plan provided for a 49 per cent increase in foreign trade turnover over 1953, probably on the assumption that the share of exports in total output in 1954 would be the same as that of reparation deliveries and exports together in 1953. The plan was subsequently revised to 33 per cent and finally an increase of only 22 per cent was reached. These figures imply that neither in 1954 nor in 1955, when exports even declined slightly, did exports completely fill the gap left by reparation deliveries.

[42] It is more than likely, however, that in the early 'fifties the share of commercial exports plus reparations in the gross national product was higher than that of commercial exports alone in recent years.

[44] Though for some sub-groups data for 1936 are available (see *Statistische Praxis*, No. 12, 1947, Karteiblatt).

TABLE 23

Commodity composition of foreign trade

Millions of current dollars and percentages

	EASTERN GERMANY [a]											
	Imports						Exports					
	1936		1950		1955		1936		1950		1955	
	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage
Food	158	36.3	148	31.4	423	36.1	6	1.2	28	7.1	25	2.0
Animal products	61	13.9	74	15.7	116	9.9	1	0.2	..	..	—	—
Vegetable products	63	14.6	68	14.4	251	21.4	5	1.0	..	..	25	2.0
Drink and tobacco	34	7.8	6	1.3	56	4.8	—	—	..	..	—	—
Industrial products	277	63.7	322	68.6	750	63.9	490	98.8	378	92.9	1 253	98.0
Raw materials	147	33.8	101	21.6	321	27.4	14	2.8	27	6.6	116	9.1
Semi-manufactures	78	17.9	105	22.3	158	13.5	44	8.9	137	33.7	98	7.7
Finished products	52	12.0	116	24.7	271	23.0	432	87.1	214	52.6	1 039	81.2
Total	435	100	470	100	1 173	100	496	100	406	100	1 278	100
	WESTERN GERMANY [b]											
Food	384	34.0	1 192	44.1	1 816	31.2	28	2.1	46	2.3	163	2.7
Animal products	133	11.8	358	13.2	426	7.3	4	0.3	11	0.6	52	0.9
Vegetable products	179	15.8	737	27.3	1 079	18.5	12	0.9	17	0.8	80	1.3
Drink and tobacco	72	6.4	97	3.6	311	5.4	12	0.9	18	0.9	31	0.5
Industrial products	746	66.0	1 512	55.9	4 006	68.8	1 333	97.9	1 934	97.7	5 973	97.3
Raw materials	452	40.0	800	29.6	1 732	29.7	142	10.4	277	14.0	374	6.1
Semi-manufactures	200	17.7	372	13.8	1 170	20.1	132	9.7	373	18.8	780	12.7
Finished products	94	8.3	340	12.5	1 104	19.0	1 059	77.8	1 284	64.9	4 819	78.5
Total	1 130	100	2 704	100	5 822	100	1 361	100	1 980	100	6 136	100

Sources : **Western Germany : 1936 :** *Statistische Praxis*, No. 12, 1947, Karteiblatt. Figures for West Berlin have been derived by deducting from the figures for Berlin as a whole the figures for East Berlin. The latter were derived by difference from data in the Karteiblatt and the *Statistisches Jahrbuch* [E.G.], 1955. **1950 and 1955 :** *Statistisches Jahrbuch* [W.G.], 1956. **Eastern Germany :** *Statistisches Jahrbuch* [E.G.], 1955.

[a] Including the trade of East Berlin for all years and trade with western Germany in 1950 and 1955.

[b] Including the trade of West Berlin and excluding trade with eastern Germany.

Table 24 gives a much more detailed break-down for trade in industrial products in the years 1950 and 1955.

Although food imports from foreign countries into western Germany have risen very substantially since 1936, their share in total imports was somewhat lower by 1955 than it had been before the war. This is an unexpected development in view of the fact that the loss of food supplies from the other regions of pre-war Germany had been considered as one of the most difficult problems of adaptation confronting the west German economy in the earlier post-war years. Within the food group, however, the share of foreign supplies of vegetable products, which include grains, remained above the pre-war ratio although it declined very sharply from 1950 as a result of an expansion in domestic output.

The second major change in western Germany's imports was the considerably smaller importance of raw materials in spite of a much greater dependence of coal imports. This may be explained, in part, by the delayed effect of the autarky policies of the 'thirties and the war period affecting, for instance, import requirements of natural fibres and rubber. More fundamental, however, is the change in the structure of west German industry—the far more

TABLE 24

Commodity composition of trade in industrial products

Millions of current dollars and percentages

	Eastern Germany [a]				Western Germany [b]			
	1950		1955		1950		1955	
	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage
Total imports:	470	100	1 173	100	2 704	100	5 822	100
of which :								
Mining	86	18.3	198	16.9	207	7.7	848	14.6
Metallurgy	79	16.8	170	14.5	96	3.6	844	14.5
Chemicals	41	8.7	76	6.5	154	5.7	405	6.9
Timber	1	0.2	8	0.7	42	1.6	256	4.4
Machinery and vehicles	8	1.7	32	2.7	92	3.4	293	5.0
Textiles	40	8.5	164	14.0	625	23.1	794	13.6
Total exports:	406	100	1 278	100	1 980	100	6 136	100
of which :								
Mining	55	13.5	99	7.7	344	17.4	503	8.2
Metallurgy	1	0.2	5	0.4	339	17.1	583	9.5
Chemicals	89	21.9	218	17.1	252	12.7	850	13.8
Machinery	66	16.3	322	25.2	279	14.1	1 147	18.7
Vehicles	11	2.7	112	8.8	113	5.7	650	10.6
Ships	—	—	85	6.7	3	0.2	168	2.7
Metal goods	5	1.2	12	0.9	194	9.8	456	7.4
Electrical engineering	21	5.2	92	7.2	72	3.6	496	8.1
Mechanics and optics	27	6.7	78	6.1	53	2.7	196	3.2
Textiles	27	6.7	58	4.5	130	6.6	407	6.6
Cellulose, paper and printing	9	2.2	27	2.1	31	1.6	81	1.3

Sources : Eastern Germany, *Statistisches Jahrbuch* [E.G.]. Western Germany: *Der Aussenhandel der Bundesrepublik Deutschland*, Teil I. Trade returns for western Germany were adjusted to fit the eastern German commodity classification.

a Includes East Berlin and trade with western Germany.
b Includes West Berlin but excludes trade with eastern Germany.

rapid expansion, at least until recently, of investment goods industries than that of consumer-goods production. Since the imported raw material content of consumer goods is substantially higher in western Germany than that of the investment-goods sector, raw material imports rose much less rapidly than industrial production.[45]

The third feature revealed by Table 23 is the large increase in the share in total imports of finished industrial products, particularly of the types required for investment-goods production, which is the reflection of the investment boom which has continued in western Germany for a number of years and was rendered possible by the far-reaching liberalization of imports.

On the export side, deliveries of finished manufactures account for almost 80 per cent of total west German exports. Within that group there has been a marked shift to products of the engineering industry, particularly machinery, vehicles and electrical equipment (see Table 24) and away from the less highly processed industrial products such as chemicals and certain metal products. Another major change was, of course, the sharp decline in the exports of mining products, largely accounted for by the drop in coal deliveries, owing to greatly increased domestic requirements and a relatively slow rate of expansion in the domestic output of coal.

Because of eastern Germany's greater dependence on inter-regional trade before the war, the fact that this trade is not included in Table 23 makes a comparison with the commodity composition of its trade in 1936 more misleading than in the case of western Germany. In general, the adaptation to the export

[45] For a detailed analysis of the divergence between the development of industrial production and raw material imports, see Dr. W. B. Hasselblatt, " Industrieproduktion und Rohstoffeinfuhr ", *Weltwirtschaftliches Archiv*, Band 73 (1954 II).

availabilities and import requirements of the eastern trading region involved a more radical change in the commodity composition of trade than can be gauged from the large commodity groups shown in the table.

The shifts in commodity composition on the import side reflect the need, particularly in the earlier post-war period, to cut down imports to strict essentials. The changes which occurred between 1950 and 1955 show that some normalization of the trade pattern has gradually taken place.

The share of raw material imports in total imports declined, but that of raw materials for heavy industry increased greatly. In contrast to western Germany, the shift of output to heavy engineering products without adequate domestic raw material resources meant higher import requirements of those types of raw materials. It follows that, in view of the tight balance-of-payments position, little room was left for imports of raw materials for consumer goods such as textile fibres and leather, and even less for goods for consumption such as coffee, cocoa, citrus and tropical fruit. There has, however, been some revival in these imports more recently.[47]

Industrial raw materials for heavy industry were supplied by eastern Europe, instead of western Germany and the other parts of Germany as before the war, but generally in insufficient quantities. For instance, hard-coal deliveries from Poland amounted to 3.1 million tons in 1955, as compared with about 8 million tons (including imports for East Berlin) supplied by the rest of Germany in 1936. No figures are available for metal imports from eastern Europe, but complaints are frequent in eastern Germany that they fall short of import requirements.

The share of agricultural products in total eastern German imports has been maintained. This is the combined result of a significant increase in the share of grain imports, for human and animal consumption, for which domestic production is inadequate, and of a decline in the share of relatively dear quality foods. The latter products are, in any case, in short supply in eastern markets and domestic production has been deliberately pushed by agricultural policy.[48] In 1936 and 1950 eastern Germany imported roughly the same amount of vegetable and animal foodstuffs. By 1955, animal foodstuffs were only half the value of vegetable foodstuff imports.

On the side of east German exports, one marked feature is the decline in the share of finished manufactures, mainly the result of the smaller part played by deliveries of consumer goods, in particular, textiles, which now make up only 5 per cent of total exports, as compared with 15 per cent in 1936. This was due to difficulties in obtaining raw material supplies, as well as to marketing difficulties. Other victims were the traditional engineering exports from light industries such as textile, printing and office machinery, and also motor-cars. The difficulty of selling these products in western markets was largely that quality and design were not sufficiently competitive.[49] On the other hand, there was a considerable expansion, particularly in recent years, in machinery exports of the heavier types and in sales of vehicles, as well as in those of the few industrial raw materials of which eastern Germany has a surplus, such as potash and brown coal by-products.

One of the great problems of adaptation was to produce the new types of engineering product for which there was an expanding demand in eastern Europe, such as rolling stock, agricultural machinery, heavy machine tools, heavy mining machinery and ships. Since these products of the heavy industries were given priority in reparation payments, this adjustment had to be made rapidly. At present, the metal-using industries supply 60 per cent of total exports, as against 30 per cent in 1936, and of the total engineering output about three-fifths goes into exports. Shipbuilding has now become one of the branches of industry with the highest export ratio, selling abroad about 80 per cent of its total output. Its share in total exports amounted in 1955 to 6.7 per cent.

For inter-regional trade, no comparison between the commodity composition before the war and that in recent years can be made except for the two large groups " Food and feeding-stuffs " and " All other commodities ", for which estimates for 1936 are available.[50] In 1955, east German deliveries of food and agricultural products constituted about 9 per cent of total exports to western Germany and imports of those goods almost 25 per cent of total imports from western Germany. The corresponding pre-war shares had been about 19 and 7 per cent (see Table 25).

[47] The share of textile raw materials and semi-manufactures declined from 18 to 8 per cent between 1936 and 1950 but recovered again to 14 per cent in 1955. (For 1936 see *Statistische Praxis*, No. 12, 1947, Karteiblatt, and for 1950 and 1955 Table 24.)

[48] Meat imports have increased from 65,700 tons in 1950 to 78,300 tons in 1955 (cf. *Neues Deutschland*, 3 November 1955) which means that they covered about 16 per cent of domestic consumption in 1950 and 10 per cent in 1955.

[49] See " Recent Developments in Trade between Eastern and Western Europe ", *Economic Bulletin for Europe*, Vol. 8, No. 2.

[50] See *Economic Bulletin for Europe*, Vol. 1, No. 3.

TABLE 25

Inter-regional trade

Millions of dollars and percentages

	Eastern German exports				Eastern German imports			
	1950		1955		1950		1955	
	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage	Millions of dollars	Percentage
Basic materials	31.7	40.0	79.4	58.2	31.2	51.3	57.4	43.8
Of which :								
Mining	6.7	8.4	38.7	28.4	1.3	2.1	9.2	7.0
Metallurgy	0.2	—	0.8	—	17.2	28.3	26.0	19.8
Chemicals	18.8	23.7	32.8	24.0	12.0	19.7	17.3	13.2
Metal-using	12.1	15.3	17.5	12.8	17.1	28.1	24.8	18.9
Of which :								
Machinery and vehicles	5.9	7.4	9.9	7.3	0.9	1.5	12.2	9.2
Mechanics and optics	4.3	5.4	6.3	4.6	0.9	1.5	1.7	1.3
Light industry	28.9	36.4	34.3	25.1	11.4	18.8	35.6	27.2
Of which :								
Textiles	11.3	14.2	20.4	14.9	3.9	6.4	4.9	3.7
Processed food, drink and tobacco	11.2	14.2	6.5	4.7	4.8	7.9	20.6	15.7
Agricultural products	6.6	8.3	5.3	3.9	1.1	1.8	13.2	10.1
Of which :								
Vegetable	5.4	6.8	4.4	3.2	0.7	1.2	9.3	7.1
Animal	—		—		0.2	0.3	3.5	2.6
TOTAL	79.3	100	136.5	100	60.8	100	131.0	100

Source : Statistisches Jahrbuch [E.G.], 1955.

Thus, from being a net exporter of food in inter-regional trade in pre-war years—but also still in 1950—eastern Germany has now become a net importer; but the quantities involved are, of course, merely a fraction of pre-war exchanges.

The post-war commodity structure of inter-regional trade at the low and restricted level of trade is characterized by the high degree of concentration in both east German exports and imports on basic materials—mainly brown coal and chemicals in the former and products of the metallurgy and chemical industries in the latter. But, whereas east German exports of mining products rose very sharply between 1950 and 1955, the supplies of chemicals and metallurgical products which eastern Germany could obtain increased relatively very slowly, with the result that the share of those two groups in total imports fell substantially. The relatively more rapid expansion in the exports than in the imports of hard goods is a reflection of the weak bargaining position of eastern Germany in bilateral trade negotiations and of the need to import more food. East German textile exports constitute a relatively high share of total exports and consist mainly of specialized products which do not compete with the west German textile industry.

The disruption of inter-regional trade and the geographic shift of eastern German trade to eastern Europe necessitated very drastic readjustments in the production and commodity pattern of trade which involved not only an expansion or contraction of existing industries or differential rates of growth as between industries, as was the case for western Germany, but also the creation of entirely new industrial branches and very often also the replacement of low-cost by high-cost production.

Balance of Payments

In 1950 the west German balance on goods and services still showed a deficit of DM 2.5 billion, which was covered by foreign aid to the extent of DM 2

billion and by a small surplus on current capital account, together with some reduction in reserves (see table below). Since then, the balance-of-payments

Balance of Payments of Western Germany
Millions of Deutschmark

	1950	*1954*	*1955*
A. Balance of goods and services (total)	−2 524	+4 032	+2 924
Imports	10 652	18 574	22 946
Exports	8 312	22 571	26 373
Services (net)	−187	+35	+503
B. Balance of current capital receipts	+458	−490	−502
C. Balance of unrequited receipts	+2 083	−388	−815
Foreign aid	+2 061	+290	+310
D. Over-all net balance (A+B+C)	+19	+3 154	+1 607
E. Changes in foreign exchange holdings, net increase (−) or decrease (+)	+305	−2 724	−1 921
F. Errors and omissions	−324	−430	+314

Source: Report of the Bank Deutscher Länder, 1955.

position has gone from strength to strength, with the exception of a short-lived setback in early 1951, when imports increased excessively as a result of the Korean boom and liberalization was temporarily suspended. The surplus on goods and services reached a peak in 1953 and 1954, amounting in each of these years to over DM 4 billion. In 1955, imports rose more rapidly than exports for the first time since 1949 and there was also a larger deficit on service account, with the result that the surplus on trade and services declined to DM 2.9 billion. This was a reflection of domestic boom conditions and partly also of higher import prices. Thanks to these large surpluses, foreign exchange holdings have increased steadily and now amount to DM 16 billion, or the equivalent of six months' imports at the rate of the first half of 1956. The favourable balance-of-payments position has made it unnecessary for western Germany to restrict consumption or investment on balance-of-payments grounds. The brake recently put on the rate of expansion was designed rather to check domestic price rises and to allay the widespread fears of a new inflation.

The situation is very different for eastern Germany. As balance-of-payments data are not made public, any evaluation of developments in this field must be based on inferences. The securing of imports from eastern European countries was and remains not only a question of ability to pay for them, but also of relative priorities established on the part of the supplying countries. For this reason, reparation deliveries assured to eastern Germany a high priority in the allocation of Soviet supplies of industrial raw materials (and even of foodstuffs), which helped indirectly to get the industrial machine started again.

Nevertheless, eastern Germany's raw material imports for reparation deliveries had to be paid for with commercial exports. This was rendered easier to a certain extent by the willingness on the part of the Soviet Union to accept substantial quantities of non-essential goods.[51] However, these exports were far from sufficient, and numerous essential basic materials had to be exported, in addition, in an unprocessed form.[52] Even so, the trading difficulties of eastern Germany induced the Soviet Union to reduce the external burden by cutting down reparations and handing back SAG plants. Since 1953, emergency credits have been granted, and their repayment continues to burden the balance of payments.

Nothing is known about quantitative movements on the capital account. It has been reported that, in order to sell heavy engineering equipment to underdeveloped countries, eastern Germany has to extend medium-term credits, but then she may also receive credits for imported goods.

Eastern Germany's foreign exchange reserves are extremely small and the chances of adding to them are not very promising, for several reasons. Trade between the eastern countries is generally balanced bilaterally, though there are a few cases of triangular settlement. Any small surpluses or deficits are ordinarily carried forward to the next accounting period. Trade with western markets is less than a third of total trade; exports, as noted above, are handicapped by lack of competitiveness and absence of formal trade agreements, while import items have very high priority, so that here also export surpluses will be difficult to achieve. A general expansion of exports would, of course, secure more imports, but there would still remain the problem of building up a minimum stock of foreign exchange reserves needed to cover time lags between exports and imports and to give more flexibility and opportunities in foreign trade transactions. The problem could scarcely be solved on any satisfactory scale out of eastern Germany's own resources, except by negotiated surpluses in trade with other members of the eastern trading region,

[51] This can be indirectly inferred from the commodity composition of exports to the eastern trading region as a whole, of which the Soviet Union constitutes an overwhelming part. In 1951, light industrial products were exported for an amount of $92 million, or almost 15 per cent of total exports to the eastern trading region, whereas in 1955 these exports amounted to less than $52 million, or below 6 per cent.

[52] In 1950, exports of basic industrial materials to the eastern trading region accounted for 41 per cent of the total, as against 19 per cent in 1954.

which would involve an expansion of eastern Germany's exports of non-essentials.

* * *

A look back over the adjustments made in the two areas shows that the western part had advantages in several respects: it was larger, more diversified and more balanced, it received aid at a crucial stage of its recovery from the post-war chaos, and its decentralized decision-making process in economic matters enabled it, in a period of world-wide expansion, to adapt itself quickly to the new pattern of demand at home and abroad.

A large reserve of labour and an inflow of migrants constituted a burden in the initial phase of the recovery, but these reserves became an asset when the reconstruction gathered momentum. Moreover, unemployment, together with other factors, reduced the pressure for higher money wages or the competitive bidding for labour, and may have kept the share of wages somewhat lower and that of profits somewhat higher than might have been the case otherwise. The fact that changes in money wages did not exceed the rise in productivity contributed to the stability of the price level, which in turn was one of the factors which made exports from western Germany expand faster than those of some of its chief competitors. Expansion at home and growth of exports were not encumbered by shortage of resources, of labour or of capital, which accumulated at an unusually fast rate. The adjustment problems inherent in the economic split of Germany soon became submerged in this vigorous expansion.

Eastern Germany, being barely half as large in area and resources as western Germany and—as a smaller part—much more dependent before the war on trade, had tougher problems of adjustment. It was not well endowed with minerals, including hard coal, and imported much of the basic materials for its industry. The active population remained almost stationary and there were no large labour reserves to draw upon. When the recovery began it was the need for reparation deliveries which gave an impetus to production but not so much to living standards. For different reasons, therefore, the share of wages in the product was low. The rate of accumulation permitted the creation of new productive capacities in certain sector, but often only at the expense of under-investment in other sectors. These handicaps were serious. The policy designed to overcome them was not confined to short-term adaptation by trial and error. Its aim was a general change in the political, social and economic structure of the area. The general production programme was embodied in a long-term plan of development drawn up along the lines of, and in conformity with, those of other planned economies. Internally the setting up of new economic units in all sectors of economic activity and the changes in industrial and agricultural structure inevitably produced some initial frictions in their working which could only gradually be overcome. Externally the orientation towards the eastern trading region implied a new adaptation not only to the demand pattern of this region, and in particular to that of the Soviet Union, but also to the region's uneven supply facilities in fuel, raw materials and agricultural products. Even after the cessation of reparation deliveries the smaller degree of specialization between the eastern trading partners constitutes a problem of adaptation for an industrially very diversified area like eastern Germany. The rate of expansion in the last five years has been rapid, but the internal and external development plans have made the structural changes in eastern Germany greater and more complex than those in western Germany, and have left the process of re-adaptation in the agricultural, industrial and foreign trade sectors still incomplete in 1955.

SOURCES AND METHODS

Table 1.—Population by Sex and Broad Age Groups

Sources : **Western Germany :** 1939: *Die Bevölkerung der Bundesrepublik Deutschland nach der Zählung vom 13.9.1950*, Heft 9, p. 33, Statistisches Bundesamt and *Statistisches Handbuch von Deutschland 1928–1944*, p. 21. Age Group 14–16 has been divided so as to obtain a limit at 15 years. 1950: *Die Bevölkerung der Bundesrepublik Deutschland nach der Zählung vom 13.9.1950*, Heft 9, p. 34; Statistisches Bundesamt. 1954: *Statistisches Jahrbuch* [W.G.] *West Berlin :* 1939: *Berliner Statistik*, März 1954, p. 44; 1950: as for western Germany; 1954: *Berliner Statistik*, Reihe Bevölkerungswesen.

Eastern Germany : 1939: *Statistische Praxis*, 1948, No. 6; 1950; 1955: *Statistisches Jahrbuch* [E.G.], 1955. *East Berlin :* 1939: Age and sex distribution for the whole of Berlin from " Berlin in Zahlen, 1947 " applied to the population of East Berlin. 1950, 1955: as for eastern Germany.

Table 2.—Active Population by sectors

Sources : **Western Germany :** *Die berufliche und soziale Gliederung der Bevölkerung der Bundesrepublik Deutschland*, Teil I, Heft 3, Statistisches Bundesamt. West Berlin: 1939: Prof. B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin 1956; 1950: *Berliner Statistik, Ergebnisse der Arbeitsstättenzählung in West Berlin*, 13 September 1950, Teil IV. Active population in agriculture and forestry for 1954: *Bericht über die Lage der Landwirtschaft*, Bonn, 1956. Total active population in 1955 for western Germany: *Statistisches Jahrbuch* [W.G.], 1956. For West Berlin it was assumed that the increase over 1950 was of the same order as for western Germany.

Eastern Germany : 1939: *Statistische Praxis*, No. 12, 1948, and Prof. B. Gleitze, *Ostdeutsche Wirtschaft*, Berlin, 1956. 1950–1955: *Statistisches Jahrbuch* [E.G.] and other data supplied by the Statistical Administration.

Tables 4 and 5.—National Income

Figures adjusted to the " eastern coverage " of national income include the net output of agriculture, forestry, industry, handicrafts, building, trade, catering and transport. The exclusion of passenger transport was not possible.

Eastern Germany : Data for 1936 and 1949 in current prices were available from the *Economic Survey of Europe since the War*, pp. 26 and 362, both at factor costs and at market prices. The 1949 factor cost data were deflated by a price index by sectors, constructed from the price indices implied in west German national income calculations as well as average earnings in industry, building and the economy as a whole (official east German data). The producer price index thus obtained for all branches of material production is in 1949 : 170 (1936 = 100). The link between 1949 and 1950 was obtained by relating our data at current market prices for 1949 (including this time East Berlin), with the official data for 1950, under the assumption that there were no significant price changes between these two years.

The distribution of national income by sectors of origin in 1936 and 1949 is taken from the figures as adjusted above. 1950 and 1955 are taken from the *Statistisches Jahrbuch* [E.G.], 1955.

Western Germany : The figures for 1936, 1950 and 1955 are taken from the *Statistisches Jahrbuch* [W.G.], 1956. Those for 1949 were directly obtained from the Statistisches Bundesamt.

The series " eastern coverage, 1936 market prices " is an estimate, based on the assumption that the " branches of material production " pay all indirect taxes and receive all subsidies.

Text table on page 61.—Average Slaughter Weights

Sources : 1938: *Statistisches Handbuch von Deutschland*, 1928–1944.

Eastern Germany : 1950: Five-year Plan Law. 1955: *Statistische Praxis*, 1956, No. 6.

Western Germany : 1950 and 1955: *Statistisches Jahrbuch* [W.G.] 1953 and 1956.

The east German figures for 1955 are estimated from changes in average live weights of animals for slaughter. These weights were: for cattle, 338 kg. in 1950 and 349 kg. in 1955 and for pigs 135 kg. and 118 kg. respectively. The significant decrease in live weights for pigs also implies a deterioration of the ratio of slaughter weights to live weights and the estimate (68 per cent) is somewhat on the high side.

Tables 13, 14 and 15.—Data on Industrial Output and Employment in 1936

All figures were taken from Professor Gleitze's computations in *Ostdeutsche Wirtschaft* (*loc. cit.*) Two adjustments, however, were necessary:

(*a*) The figures for Berlin were not always divided between East and West Berlin. As far as turnover was concerned, this break-down was not available for liquid fuels, oils and fats, chemicals, spirits and aircraft. In all these cases it was assumed that the distribution between East and West Berlin was proportionate to total industrial employment—i.e., 37 to 63 per cent. In a far greater number of branches where the employment data was not broken down it was assumed that employment was proportionate to turnover.

(*b*) The data on turnover and employment had to be regrouped according to the present east German classification by branches and sectors. This involved a rather rough and ready classification of borderline cases. These were mostly of minor importance, except for the distinction between metallurgy and engineering. Under " Metallurgy " only iron and steel-making and non-ferrous metallurgy are included. This may somewhat distort the comparability of east German figures by underestimating in 1936 the share of metallurgy and, by the same token, that of the sector of " Basic materials ".

Text Table on page 78.—Volume of Foreign Trade

Eastern Germany : No official volume calculations are available. The estimate was made by using pre- and post-war current dollar values and applying to them the price index calculated in the United Nations *Monthly Bulletin of Statistics*. A check was possible by using the Soviet implied foreign trade price index (see the *Economic Survey of Europe in 1954*, pp. 110 and 292), which shows a greater increase in prices than the United Nations index.

The share of exports in net commodity output in 1936 was taken from the *Economic Bulletin for Europe*, Vol. 1, No. 3, and the figures for 1950 and 1955 were calculated from the volume estimates of output and exports. Naturally, these figures cannot give more than only orders of magnitude and trends.

Western Germany : The figures are derived from official national income and foreign trade volume statistics.

CORRIGENDA

to the

ECONOMIC BULLETIN FOR EUROPE, Vol. 8, No. 2

Page 18, footnote 19; second line: For " 10 per cent " read " 5 per cent ".

Page 30, Table 19: Area sown to grain in Czechoslovakia:

1955 Oats: for " 0.63 " read " 0.53 "
1956 Wheat: for " 0.65 " read " 0.72 "
1956 Rye: for " 0.55 " read " 0.52 "
1956 Oats: for " 0.62 " read " 0.54 "

Page 35, Table 23: Increases in the volume of retail sales in state and co-operative shops in Czechoslovakia are as follows:

	1955 Whole year actual	1955 First half actual
Total trade turnover	11	15
Sugar	4	6
Meat	4	−1
Butter	4	4
Coffee	20	29
Washing machines	62	63
Domestic refrigerators	57	90
Watches	66	116
Motorcycles	112	129
Television sets	126	277

Source : New information communicated by the Government of Czechoslovakia.

REVISIONS OF AND ADDITIONS TO TABLES ON HUNGARY

ECONOMIC BULLETIN FOR EUROPE, Vol. 7, No. 2

Since publication of the article " The Economy of Hungary, 1950 to 1954 " (*Economic Bulletin for Europe*, Vol. 7, No. 2, pp. 85–110) and information relating to Hungary in the *Survey* for 1955, the Hungarian Government has released additional statistical material by direct communication to this secretariat and by publishing a statistical handbook (*Magyar Statisztikai Zsebkönyv*, Vol. XXVI, Budapest, 1956). It has not been thought necessary to note corrections which are without significance. Furthermore, available data are still insufficient for carrying out some corrections in Tables 3 and 4 of the *Bulletin* article and Tables 101 and 121 of the *Survey*. These, however, are not of such a nature as to affect the analysis.

Page 86, Table 1, Building and construction, Actual: For " 269 " read " 245 ".

Page 88, Table 5:

	1950	1951	1952	1953	1954
Transport	1.8	1.8	2.4	1.8	0.8

Page 92, Table 9: Figures for 1953 should read: " 120, 123, 121, 126.".

Page 95, Appendix Table I:

PLANNED AND ACTUAL OUTPUT BY COMMODITIES IN HUNGARY

	Actual					
	1949	1950	1951	1952	1953	1954
Coal and lignite:						
Ton for ton				18.56	21.00	21.54
In hard coal equivalent				11.13	12.01	12.10
Iron ore			0.31	0.32	0.36	0.43
Bauxite		578	753	1 207	1 394	
Alumina		34	87	106	130	
Aluminium		17	21	25	28	
Steam locomotives	0.195	0.213	0.196	0.187	0.131	0.150
Motor lorries	1.00	2.50	4.52	6.14	6.52	4.22
Motor buses	0.18	0.44	0.37	1.02	1.18	1.14
Tractors	2.74	4.13	3.32	2.27	0.85	3.70
Combine harvesters						0.93
Threshing machines		0.5	1.1	1.1	0.4	
Wireless sets	68	99	156	167	158	258
Vegetable oil and margarine	..	57.5	71	90	60	78

Page 96, Appendix Table II:

HUNGARIAN INDUSTRIAL PRODUCTION, 1949-1954

	Actual 1954 *Billions of Plan forints*	1950	1951	1952	1953	1954
		Index numbers (1949 = 100)				
Mining	2.72					196
Electric power	..					198
Metals	5.59					231
Engineering	..	152	245	343	404	
Chemicals and rubber	6.50	131	171	221	264	289
Building materials	..	148	187	234	279	262
Transport repair shops	..	99	114	126	159	170
Total heavy industry		136	193	254	299	
Textiles	10.15	120			154	167
Clothing	..	216	372	461	451	455
Leather and furs	..	134	134	140	152	153
Woodworking	..	138	223	284	282	262
Paper	..	123	148	162	166	178
Printing	..	127	133	137	152	152
Diverse local industries [a]	..	—	3	100	489	994
Total light industry		130	167	188	189	
Total gross output before allowance for duplication	70.1	137	182	225	251	255

[a] 1952 = 100.

Page 98, Appendix Table IV:

RETAIL TRADE TURNOVER OF MANUFACTURED GOODS IN HUNGARY

	1951	1952	1953	1954
Silk cloth			3.2	5.2
Stoves		79.6		
Bricks	22.6			
Lime	56.2			

ECONOMIC SURVEY OF EUROPE IN 1955

Page 173, Table 81:

Output of basic commodities in eastern Europe, 1953-1955

	Percentage change in	
	1954	1955
Hungary		
Crude oil	+44	+32
Pig iron	+18	+3
Crude steel	− 3	
Cement	−11	

Page 174, Table 82:

Harvest results in eastern Europe

	1953	1954	1955
Hungary			
Bread grain	2.7	2.1	
Coarse grain	3.5		3.9
Potatoes	1.9	2.0	2.5
Sugar beet	2.5	1.9	

Page 224, Table 107:

Planned and actual increases in industrial output during the long-term plans

	Hungary 1949 to 1954		
	Plan	Actual	
	Absolute increase		Percentage increase
Electric power	3.85		
Iron ore			2.6
Nitrogenous fertilizers (nitrogen content)	49.2	2.4	2.2

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